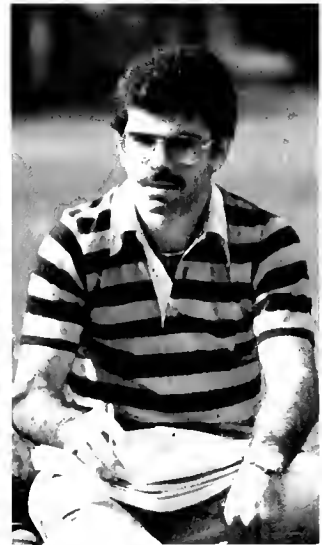




West Chester University



GRADUATE
CATALOG

1985-1986

Communications Directory

MAILING ADDRESS:	West Chester University, West Chester, Pa. 19383
TELEPHONES:	Dial 436 plus number in parentheses. For offices not shown here, call the University Switchboard: 436-1000. Area Code: 215.
Academic Advising	Director for Academic Advising, Lawrence Center (3505)
Academic Development Program	Director of Academic Development Program, FHG Library — (2600)
Admissions Catalogs	Director of Admissions, 110 West Rosedale Avenue (3411)
Affirmative Action	Director of Affirmative Action (2433)
Book Store	Intracollegiate Governmental Association, Sykes Union Building (2242)
Careers Placement	Director of Career Development Center, Lawrence Center (2501)
Continuing Education	Director, Lifelong Learning, Learning and Research Center (2833) Coordinator, Evening Division, Learning and Research Center (2811)
Counseling	Counseling Center, Lawrence Center (2301)
Cultural Affairs and University Events	Co-Curricular Programs Program Board, Sykes Union Building (2983)
Financial Aid Work Study	Director of Financial Aid to Students, Learning and Research Center (2627)
Graduate Studies Catalogs	Dean of Graduate Studies, Learning and Research Center (2943)
Housing	Student Development Office, Sykes Union Building (3305)
IGA Business Office	Intracollegiate Governmental Association, Sykes Union Building (2955)
Police	Department of Public Safety, Peoples Maintenance Building (3311)
Public Relations	Director of Public Relations, Philips Memorial (3383)
Scheduling Registration	University Registrar, Learning and Research Center (3541)
Student Accounts	Student Accounts Office, Learning and Research Center (2552)
Summer Sessions	Director of Summer Sessions, Learning and Research Center (2230)
Teacher Certification	Teacher Certification Office, Anderson Hall (2426)

Accreditation

West Chester University is accredited by The Middle States Association of Colleges and Secondary Schools, The National Council for Accreditation of Teacher Education, The National Athletic Training Association, The National Association of Schools of Music, The National League for Nursing, The American Chemical Society, The Commission on Accreditation in Clinical Chemistry, and the Joint Review Committee for Respiratory Therapy Education. West Chester University has been given program approval by the Department of Education of the Commonwealth of Pennsylvania for the certification of teachers.

Non-Discrimination Affirmative Action Policy

West Chester University is committed to providing leadership in extending equal opportunities to all individuals. Accordingly, the University will continue to make every effort to provide these rights

to all persons regardless of race, religion, sex, national origin, ancestry, age, marital status, sexual orientation, handicap, or veteran status. This policy applies to all members of the University community including students, faculty, staff and administrators. It also applies to all applicants for admission or employment and all participants in University-sponsored activities.

This policy is in compliance with federal and state laws, including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendment of 1972, Section 504 of the Rehabilitation Act of 1973 and Executive Order of the Governor of Pennsylvania.

Any individual having suggestions, problems, complaints, or grievances with regard to equal opportunity or affirmative action is encouraged to contact the director of affirmative action in Smith House, 1st floor, (215) 436-2433.

Sexual Harassment Policy

West Chester University is committed to equality of opportunity and freedom from discrimination for all its students and employees. Based on this commitment and the recognition that sexual harassment is a form of discrimination which is of a growing concern to the higher education community, the University provides the following policy:

Harassment on the basis of sex, is a violation to Title VII of the U.S. Civil Rights Act, Title IX of the Educational Amendments of 1972, and of the Pennsylvania Human Relations Act. Because West Chester University is committed to establishing an environment free from discrimination and harassment, sexual harassment will not be tolerated in any form. Upon official filing of a complaint, immediate investigation will be made culminating in appropriate corrective action where warranted which may include termination of the relationship with the University.

Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature occurring on campus or at any co-curricular or extracurricular activity sponsored by the University. Sexual harassment occurs when:

- 1. submission of such conduct is made either explicitly or implicitly a term or condition of an individual's employment, or of a student's academic status or treatment;*
- 2. submission to or rejection of such conduct by an individual is used on the basis for academic or employment decisions affecting such an individual, or*
- 3. such conduct has the purpose or effect of unreasonably interfering with an individual's extracurricular activities, work, academic performance or creating an intimidating, hostile, or offensive living, working or academic environment.*

Individuals who believe themselves to be the victims of sexual harassment, or who have questions about the University's policy on this matter should contact the Affirmative Action Director, Smith House, 1st Floor, (215) 436-2433.

The provisions of this catalog are not to be regarded as an irrevocable contract between the student and the University. West Chester University reserves the right to change any provisions or requirements at any time.

Office of Graduate Studies and Sponsored Research

Hours: 8:00 a.m. to 6:00 p.m. Monday through Thursday when the University is in session. On Friday and all days when the University is not in session, hours are 8:00 a.m. to 4:30 p.m. Hours during summer sessions are 8:00 a.m. to 4:00 p.m.

Room 37, Learning Research Center, High Street and Rosedale Avenue, West Chester, Pa. 19383. Telephone: area code 215-436-2943

West Chester University



GRADUATE CATALOG

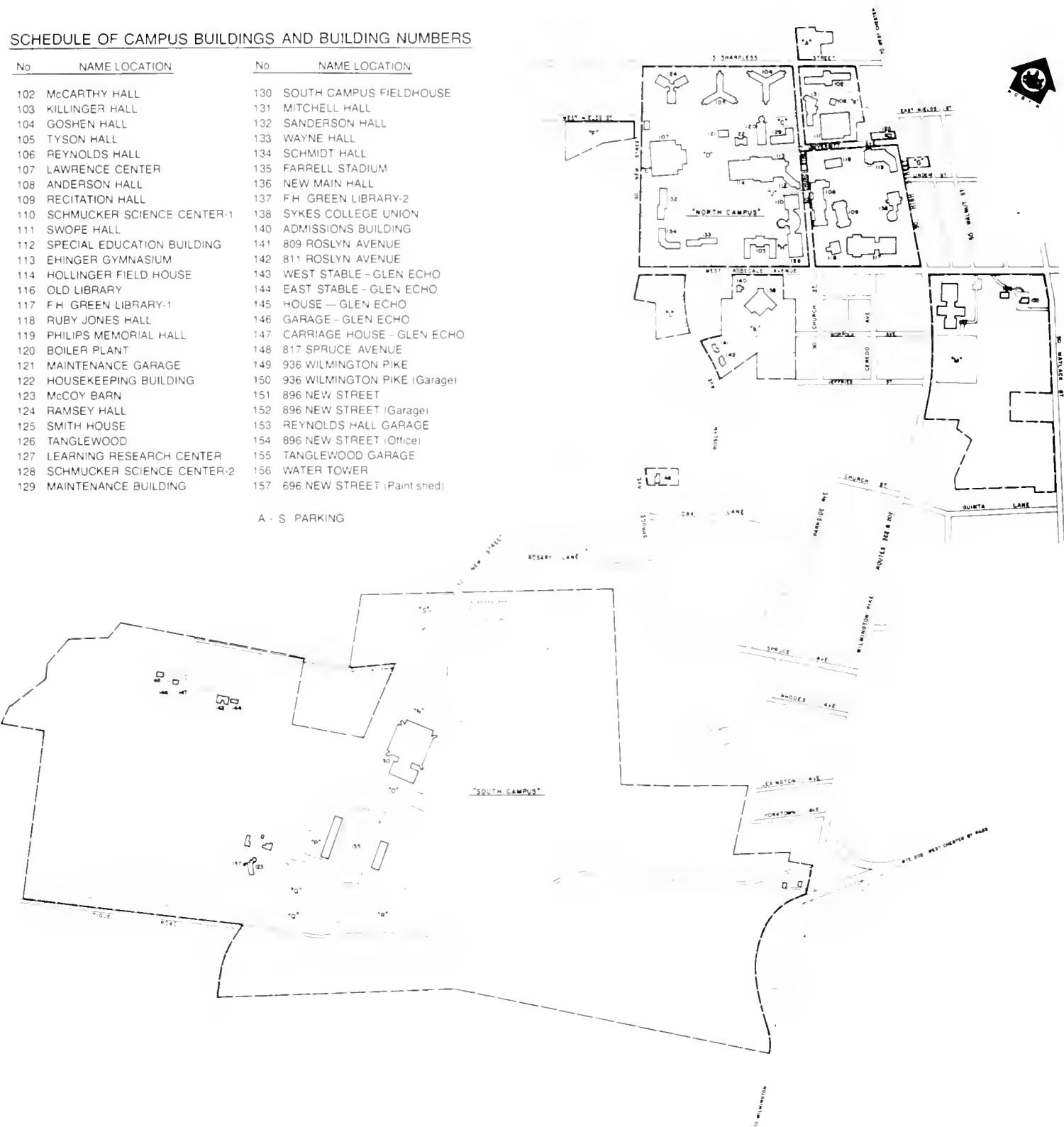
1985-1986

Campus Map

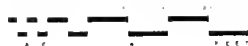
SCHEDULE OF CAMPUS BUILDINGS AND BUILDING NUMBERS

No	NAME LOCATION	No	NAME LOCATION
102	MCCARTHY HALL	130	SOUTH CAMPUS FIELDHOUSE
103	KILLINGER HALL	131	MITCHELL HALL
104	GOSHEN HALL	132	SANDERSON HALL
105	TYSON HALL	133	WAYNE HALL
106	REYNOLDS HALL	134	SCHMIDT HALL
107	LAWRENCE CENTER	135	FARRELL STADIUM
108	ANDERSON HALL	136	NEW MAIN HALL
109	RECITATION HALL	137	F.H. GREEN LIBRARY-2
110	SCHMUCKER SCIENCE CENTER-1	138	SYKES COLLEGE UNION
111	SWOPE HALL	140	ADMISSIONS BUILDING
112	SPECIAL EDUCATION BUILDING	141	809 ROSLYN AVENUE
113	EHINGER GYMNASIUM	142	811 ROSLYN AVENUE
114	HOLLINGER FIELD HOUSE	143	WEST STABLE - GLEN ECHO
116	OLD LIBRARY	144	EAST STABLE - GLEN ECHO
117	F.H. GREEN LIBRARY-1	145	HOUSE - GLEN ECHO
118	RUBY JONES HALL	146	GARAGE - GLEN ECHO
119	PHILIPS MEMORIAL HALL	147	CARRIAGE HOUSE - GLEN ECHO
120	BOILER PLANT	148	817 SPRUCE AVENUE
121	MAINTENANCE GARAGE	149	936 WILMINGTON PIKE
122	HOUSEKEEPING BUILDING	150	936 WILMINGTON PIKE (Garage)
123	MCCOY BARN	151	896 NEW STREET
124	RAMSEY HALL	152	896 NEW STREET (Garage)
125	SMITH HOUSE	153	REYNOLDS HALL GARAGE
126	TANGLEWOOD	154	896 NEW STREET (Office)
127	LEARNING RESEARCH CENTER	155	TANGLEWOOD GARAGE
128	SCHMUCKER SCIENCE CENTER-2	156	WATER TOWER
129	MAINTENANCE BUILDING	157	696 NEW STREET (Paint shed)

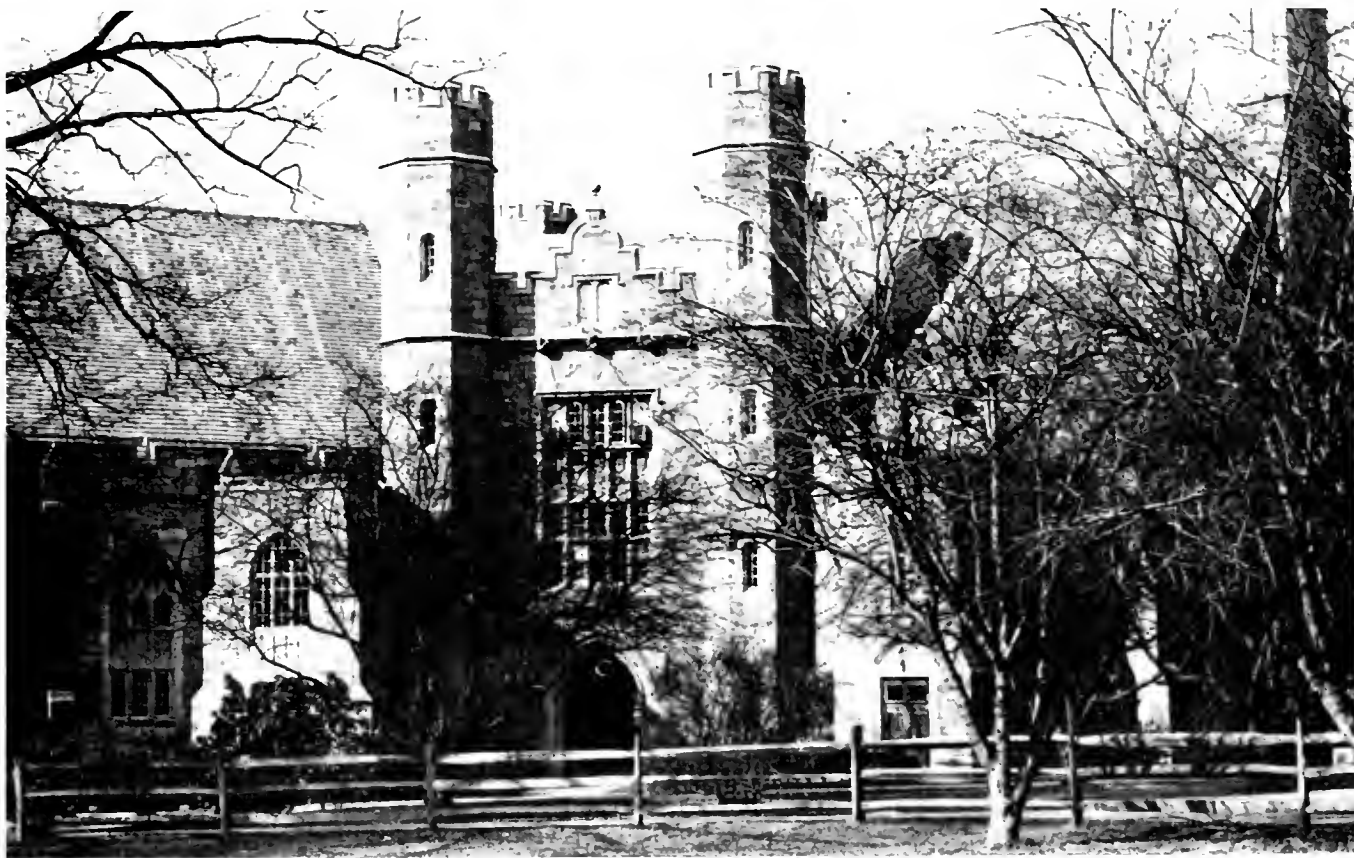
A - S. PARKING



WEST CHESTER UNIVERSITY
WEST CHESTER PENNSYLVANIA



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Programs of Study

Administration

M.S. in Administration (Concentrations: Economics, Finance, Health Services, Leadership for Women, Psychology Personnel, Public Administration, Social Work, Sport and Athletic Administration, Urban Regional Planning)

Cooperative degree with Clinical Chemistry

Biology

M.A. in Biology

M.Ed. in Biology

Business

M.B.A. (Concentrations: Accounting, Economics, Finance, Management, Management Information Systems, Small Business Management)

Chemistry

M.Ed. in Chemistry

M.S. in Chemistry; Clinical Chemistry

M.A. in Physical Science (Interdepartmental—See Physical Science)

Childhood Studies and Reading

M.Ed. in Elementary Education (Concentrations: Bilingual Education, Children's Literature, Creative Teaching-Learning, Early Childhood Education, Elementary Education, Human Development, Language Arts, Mathematics, Reading, Science, Social Studies, Special Education)

Certification in Elementary Education

M.Ed. in Reading;

Reading Specialist Certification

Certificate of Advanced Graduate Study in Childhood Studies and Reading

Communicative Disorders

M.A. in Speech Pathology

Counselor, Secondary, and Professional Education

M.Ed. in Elementary Education Counseling; Secondary Education Counseling

M.S. in Higher Education Counseling; Educational Research

Specialist I Certificate in Counseling (Elementary or Secondary)

M.Ed. in Secondary Education (Academic concentrations: English, French, German, History, Latin, Spanish, Biology, Mathematics)

M.Ed. in Secondary Education

Courses in Environmental Education, Urban Education

Criminal Justice

M.S. in Criminal Justice

Economics

M.S. in Administration (Concentration: Economics Finance)

English

M.A. in English

Foreign Languages

M.Ed. in French; Spanish; German, Latin

M.A. in French; Spanish

Geography

See Government and Planning

Geology and Astronomy

M.A. in Physical Science (Interdepartmental—See Physical Science)

Government and Planning

M.A. in Political Science, Geography

M.S. in Administration (Concentrations: Leadership for Women, Public Administration, Urban Regional Planning)

Health

M.Ed. in Gerontology, Public Health; School Health

M.S. in Environmental Health; Gerontology; Public Health; School Health; Administration (Concentration: Health Services)

Certificate program in Gerontology

History

M.A. in History

M.Ed. in History

Instructional Media

M.Ed. in Instructional Media Education

M.S. in Instructional Media

Teaching Certification for Instructional Media Education

Leadership for Women

M.S. in Administration (Concentration: Leadership for Women)

Mathematical Sciences

M.A. in Mathematics (Concentrations: Pure Mathematics, Mathematics Education, Applied Computer Science)

M.Ed. in Mathematics

M.S. in Computer Science

Music

M.A. in Music History

M.M. in Accompanying; Keyboard Performance; Piano Pedagogy

M.M. in Music Education

M.M. in Instrumental Performance

M.M. in Music Theory; Composition

M.M. in Vocal Choral Performance

Philosophy

M.A. in Philosophy

Physical Education

M.Ed. in Health and Physical Education

M.S. in Physical Education; Administration (Concentration: Sport and Athletic Administration)

Physical Science

(Interdepartmental)

M.A. in Physical Science (Concentrations: Chemistry, Geology/Astronomy, Physics)

Physics

M.A. in Physical Science (Interdepartmental—See Physical Science)

Political Science

See Government and Planning

Psychology

M.A. in Clinical Psychology; General Psychology; Industrial/Organizational Psychology; Social Science (Concentration: Psychology)

M.S. in Administration (Concentration: Psychology Personnel)

Public Administration

See Government and Planning

Social Work

M.S. in Administration (Concentration: Social Work)

Special Education

M.Ed. in Special Education

Teaching English as a Second Language

M.A. in Teaching English as a Second Language

The following departments and interdisciplinary areas offer graduate courses, but no graduate degree.

Art, Ethnic Studies, Linguistics, Speech Communication and Theatre, Women's Studies

Graduate Studies at West Chester

Objectives: West Chester University Graduate Studies are committed to broadening scholarship, strengthening professional skills, and encouraging significant research.

THE GRADUATE STUDIES PROGRAM at West Chester has grown remarkably since its introduction in 1959. About 1,200 students now attend during the fall and spring semesters; some 2,500 enroll for summer sessions. West Chester University's graduate program is the largest within the fourteen Commonwealth-owned institutions of higher learning.

The University began as the West Chester Academy in 1812 and functioned as a normal school from 1871-1927. Since it became a four-year college in 1927, West Chester has developed steadily and is now one of the major comprehensive institutions of higher learning in the Philadelphia vicinity.

Facilities for graduate education are excellent. The Commonwealth inaugurated an extensive building program in the 1950's. Examples are the Schmucker Science Center, a block-long complex of buildings including a planetarium, astronomical observatory, and modern laboratories; Elsie O.

Bull Learning and Research Center; and the Francis Harvey Green Library, one of Pennsylvania's principal university libraries.

The University offers the Master of Arts, the Master of Business Administration, the Master of Education, the Master of Music, and the Master of Science in approximately seventy disciplines or areas of study.

Master's degree programs such as the M.B.A., the M.A. in speech pathology, the M.S. in administration, the M.S. in computer science, and the certificate of advanced graduate study in reading have been designed to meet the particular needs of the times and the area.

In addition to its degree and certification programs, West Chester offers non-degree study in a number of areas including art, economics, linguistics, speech communication, theatre arts, and urban education.

For the benefit of in-service teachers and other employed persons, West Chester schedules most of its graduate classes during late afternoons and evenings.

Graduate Summer Sessions

The 12-week summer sessions are divided into three periods: the Pre Session of three weeks, the Regular Session of six weeks, and the Post Session of three weeks. Most Pre Session classes meet in the evenings; almost all classes for the other two sessions meet during the daytime. (To apply, see Admission.) Admission to summer sessions courses does not constitute admission to a degree program.

The Campus

The University is located in West Chester, a community in southeastern Pennsylvania strategically located at the center of the mid-Atlantic corridor. The seat of Chester County government for almost two centuries, West Chester retains much of its historical charm in its buildings and unspoiled countryside, but offers the twentieth-century advantages of a town in the heart of an expanding economic area.

The University occupies 385 acres. The main campus is situated on 94 acres within the Borough of West Chester; the south campus is located on a 291-acre tract in adjacent townships.

West Chester was settled in the early eighteenth century principally by members of the Society of Friends. With a population of about 20,000, the borough

is small enough to have the pleasant aspects of a tree-shaded American town, large enough to provide essential services and the substance of a vigorous community, and old enough to give the student first-hand touch with America's early history. The heart of West Chester is its courthouse, a Classical Revival building designed in the 1840's by Thomas U. Walter, one of the architects for the Capitol in Washington, D.C.

West Chester today is part of the rapidly growing suburban complex surrounding Philadelphia and offers interesting opportunities for the study of local, county, and regional government in a period of change and growth.

Philadelphia is 25 miles to the east and Wilmington 17 miles to the south of the campus. Thus the libraries, museums, and other cultural and historical resources of both cities are within easy reach. Valley Forge, the Brandywine Battlefield, Longwood Gardens, and other historical attractions are near West Chester.

How to Reach West Chester

The Borough of West Chester is easily accessible from all directions both by car and public transportation. Route 3, the West Chester Pike, leads directly into town from center-city Philadelphia. From the Pennsylvania Turnpike, motor-

ists traveling west should take Route 202 south from the Valley Forge Interchange while those traveling east can arrive via Route 100 south from the Downingtown Interchange. From the south, Route 202 from Wilmington and Routes 100 and 52 from U.S. Route 1 all lead to West Chester.

Undergraduate Studies

Some 6,400 full-time and nearly 2,000 part-time students are enrolled in the University's undergraduate program. The University grants the Associate of Arts in thirty areas, the Associate of Science in two fields, the Bachelor of Science in Education in four basic curricula—elementary education, secondary education, music education, and speech pathology and audiology; the Bachelor of Arts in arts and letters, social and behavioral science, the natural sciences, mathematics, and music; the Bachelor of Science in the sciences and health sciences; the Bachelor of Music in theory/composition, performance, and music history; and the Bachelor of Science in Nursing.

Degree programs which prepare students for specialized work in business administration, computer and information sciences, criminal justice, nursing, social welfare, speech pathology and audiology and many other fields are offered.

The Admissions Office will supply an undergraduate catalog upon request.

Admission

Student Responsibility

It is the responsibility of students to know and observe all policies and procedures for their programs. The University will not waive a regulation because a student pleads ignorance of it. A student planning to graduate should give careful attention to the dates relating to application for graduation as well as other pertinent deadlines announced by the department or the Office of Graduate Studies.

Students with a bachelor's degree from an accredited college or university in the United States or with equivalent preparation acquired in another country are eligible to apply for admission as **degree** or **non-degree** students. **Non-degree** students include those seeking certification, professional growth, or strengthened backgrounds for various professional and industrial occupations.

The Application Procedure

1. Applications are available from the Office of Graduate Studies and, when completed, should be returned there.
2. Applicants applying as degree students must request all institutions at which they have taken any post-secondary work to submit two official transcripts directly to the Office of Graduate Studies and Sponsored Research. West Chester University undergraduate transcripts are available to the Office of Graduate Studies and need not be forwarded by the applicant.
3. Applicants who have unusual problems or questions are advised to request an interview with the dean of graduate studies.

Application Deadline

Degree candidates should apply for admission at least two months before registration for the semester or summer session in which they wish to enroll.

Notification of Admission

Applicants will be notified by the dean of graduate studies of the acceptance or rejection of their applications.

Registration

Those who have been accepted as graduate students will receive registration instructions by mail prior to each semester and the summer sessions.

Admission Requirements for Degree Students

1. A baccalaureate degree from a college or university accredited in the United States or its equivalent from a school in another country.
2. A cumulative average of at least 2.50 and a grade of at least 2.75 in the area of concentration. (A equals 4).
3. Scores from the Graduate Management Admission Test, Graduate Record Examination, or the Miller Analogies Test if these are required for admission to the program in which the student wishes to enroll.
4. Approval by the department offering the desired degree program. Before such approval is given, an interview with a faculty member may be required. The applicant must also meet any other additional requirements established for the degree program.
5. Approval by the dean of graduate studies.
6. Space available in the program.

An applicant who has academic deficiencies may be granted provisional status. The department chairperson or graduate coordinator will specify course work which must be taken to remove such deficiencies and which will not be credited to degree requirements.

Admission to degree study does not constitute admission to degree candidacy. After a student has satisfactorily fulfilled certain course requirements specified in the degree program and has completed 12 to 15 semester hours of work, the student applies for admission to degree candidacy.

Admission Requirements for Non-Degree Students

1. A baccalaureate degree from a college or university accredited in the United

States or its equivalent from a school in another country.

2. A cumulative average of 2.0 (A equals 4).
3. A properly completed application form.
4. An interview with a faculty member if special questions arise during the evaluation of the application.

Admission is dependent upon the availability of space in the desired department or program of study.

Those admitted as non-degree students may include applicants who fail to qualify as degree students. There is no assurance that courses taken under non-degree status may be used later to satisfy degree requirements.

Undergraduates

An undergraduate who is in the final semester of work for the bachelor's degree and has an overall grade point average of at least 3.0 may, with the permission of the dean of graduate studies, enroll in up to six credits of graduate-level courses. Credits earned may be applied to a master's degree program.

Auditors

An auditor is a student who attends classes but who does not necessarily do other work required of students in the course. The auditor need not meet normal admission requirements but must obtain approval to audit from the department chairperson or program coordinator and the course professor. Auditors pay the regular basic fee and must file the usual formal application for admission to the University. The student cannot receive credit for courses taken as an auditor.

Transfer of Credit

Applicants to a degree program at West Chester who have earned credits through previous graduate study at another college or university may transfer credit under certain circumstances.

1. The credits must have been earned at an approved graduate school.
2. The courses taken must be approved by the department in which the appli-



- cant intends to enroll at West Chester.
3. Normally, no more than six credits may be transferred.
 4. The grade earned for courses to be transferred must be B or better (A equals 4).
 5. Two official transcripts must be submitted. These must be sent directly to the Office of Graduate Studies by the institution which granted the credits, and they must clearly indicate that the courses to be transferred are graduate courses which were given graduate credit.
 6. The courses for transfer must have been taken recently enough to fall within the six-year time limitation.
 7. Application forms for transfer of credit may be obtained in the Office of Graduate Studies and Sponsored Research.

Admission of Foreign Students

Students from foreign countries may be admitted to the graduate program pro-

vided they meet certain special requirements. Foreign students, like other out-of-state students, are accepted only when space is available.

All applications and supporting documents must be on file in the Office of Graduate Studies and Sponsored Research no less than four months before the student proposes to enter the country. Applicants whose native language is not English must submit evidence of satisfactory performance on the Test of English as a Foreign Language to the Office of Graduate Studies and Sponsored Research before application forms can be processed. Normally a score of 550 is considered acceptable. Information about the TOEFL test, including test dates and locations in foreign countries, can be obtained from the Educational Testing Service, Box 899, Princeton, N.J. 08540, U.S.A. Registration forms must reach Princeton at least five weeks before the test is to be taken.

The following information and documents must be filed with the Office of

Graduate Studies and Sponsored Research, West Chester University.

1. A completed application form.
2. An official copy of the school certificates, showing the date issued, for all work done beyond the elementary level.
3. A statement from a bank or other financial institution certifying ample financial resources to maintain oneself while a student in the United States.
4. A U.S. Immigration (I-20) Form.

After the application and supporting documents have been reviewed, the Office of Graduate Studies and Sponsored Research will notify the applicant of its action. Foreign students are urged to remain in their own countries until they receive notice of acceptance. The University cannot assume responsibility for their housing or welfare. Once a foreign student has been admitted, University authorities will make every reasonable effort to find suitable housing.

Degree Candidacy and Degree Requirements

Requirements for Admission to Degree Candidacy

Application for degree candidacy normally should be made within the first 12 to 15 semester hours of the pre-candidacy period.

During the pre-candidacy period the students must:

1. Complete those courses which the department or program specifies as prerequisite to degree candidacy.
2. Perform satisfactorily on examinations which the department or program may require for admission to degree candidacy.
3. Maintain an overall average of at least 2.75 and an average of at least 3.00 in the concentration.

Procedure for Application to Degree Candidacy

1. The student must file an application for admission to degree candidacy with the dean of graduate studies and pay the \$20 application fee. Forms are available in the Office of Graduate Studies and Sponsored Research.
2. When the application has been evaluated by the department concerned, the dean of graduate studies will send a letter of acceptance or rejection to the student.
3. Upon notice of acceptance, degree candidates must confer with their

advisors to establish a program of study.

Reapplication for Degree Candidacy

Applicants who fail to qualify as degree candidates may reapply. They must attain an average of 3.00 in course work specified by their advisor.

Retention in a Degree Program

The record of a student whose grade point average falls below 3.0 in his or her major field and 2.75 over all after acceptance to degree candidacy will be reviewed by the department advisor. If, after 24 hours of work in a degree program, the student's grade point average is still below a 3.0 in the major field and 2.75 over all, the student will be dropped from the program. An appeal for readmission may be made to the dean of graduate studies.

Summary of Requirements for the Master's Degree

1. Admission to degree candidacy.
2. Completion of all required courses with a cumulative average of 2.75, an average of 3.00 in the field of specialization, and achievement of satisfactory scores on the Graduate Management Admission Test, Graduate Record Examination or the Miller Analogies Test, if required. (See program requirements.)

3. Satisfactory performance on a final written and/or oral comprehensive examination conducted by the student's advisory committee in the field of specialization. (It is the responsibility of the candidate to apply for this examination.)
4. Submission and approval of the thesis or research report in those programs requiring it.
5. Fulfillment of any special examinations, requirements, or competencies which are peculiar to a department.
6. Fulfillment of all financial obligations to the University, including payment of the graduation fee, and of all other obligations including the return of University property.
7. Compliance with all academic requests from the dean of graduate studies, including submission of a form letter of intent to graduate by the specified due date.

Additional Requirements for the Master of Education Degree

In addition to fulfilling these requirements, candidates for certain of the Master of Education degrees must give evidence of successful teaching experience approved by the department chairperson. Other experiences in lieu of this requirement must be approved by the dean of graduate studies and sponsored research.

Fees and Expenses

Special Note: The fees listed below reflect charges at press time. For up-to-date information on fees at any given time, contact the Student Accounts Office, (215) 436-2552.

Fees and expenses are subject to change without notice.

Unless otherwise specified, fees may be paid by Visa, Master Charge, check, or money order made payable to West Chester University. The cancelled check, money order record, or charge card billing, serves as a receipt.

Basic Graduate Fees for Legal Residents of Pennsylvania

Less than 9 credits	\$89.00 per semester hour of credit
9 through 15 credits	\$800.00 per semester
More than 15 credits	\$800.00 plus \$89.00 for each semester hour of credit beyond 15

Basic Graduate Fees for Out-of-State Students

Less than 9 credits	\$99.00 per semester hour of credit
9 through 15 credits	\$891.00 per semester
More than 15 credits	\$891.00 plus \$99.00 for each semester hour of credit beyond 15

Housing Fee

The housing fee for students living in campus residence halls is \$1040.00 per semester and covers room (\$652.00) and meals (\$388.00) while the University is in session. These fees are subject to an annual adjustment.

Application to Degree Candidacy Fee

The \$20.00 Application Fee, made payable to West Chester University, should be sent directly to the Financial Management Division.

Credit by Examination

A fee of \$25.00 is paid at the Student Accounts Office at the time the examination is scheduled.

Late Registration Fee

A late registration fee of \$25.00 is required of students scheduling and paying after the official registration deadline.

Community Center Fee

Students pay a community center fee based on the number of credits carried, as follows:

1 through 6 credits	\$ 2.50 per semester
7 through 8 credits	\$ 5.00 per semester
9 credits or more	\$10.00 per semester

The community center fee is **not refundable**.

Course Audit Fee

Students who audit a course (attend a course without taking credit) pay the same fees as other students.

Financial Obligations

Students are expected to make full payment of fees by the registration deadline in advance of each semester. The University sends bills for fees preceding each semester. If payment is not made within the stipulated period, the student incurs a late fee.

Payments normally fall due each academic year as follows:

Fall semester	Early in July
Spring semester	Early in December

Any change in these dates will be shown on Fall or Spring invoices. Checks should be made payable to West Chester University and mailed to:

Student Accounts Office
Learning and Research Center
West Chester University
West Chester, PA 19383

No student will be enrolled, graduated, or given a transcript of his or her record until all charges due at the particular time are paid.

Billing Address Changes

If a student's billing address changes during enrollment at the University, the new address must be given to the Student Accounts Office in the Learning and Research Center to avoid delayed delivery of bills.

Dishonored Check Fee

A fee of \$25.00 is charged to accounts where a stop-payment order has been

entered for a check sent in payment and for checks returned marked "Insufficient Funds." An additional late registration fee is also applicable.

Transcript Fee

\$2.00 per copy. Transcript request forms are available in the Office of the Registrar.

Music Fees

In addition to the basic fee, graduate students in music are billed according to the following fee schedule:

Piano, Organ, Instrument, or Voice — one half-hour lesson each week	\$55 per semester
Instrument Class or Ensemble — 2 hours per week	\$35 per semester

Rentals

Any band or orchestra instrument	\$6.00 per semester
	\$1.00 per week in summer sessions
Organ	(\$12.00 per semester)
	\$2.00 per week in summer sessions

Withdrawal Procedure

Students who wish to withdraw from the University after paying their semester or summer session fees must follow the official withdrawal procedure. Withdrawal forms are available in the Registrar's Office, Learning Research Center. Completed forms must be returned to that office during the semester or summer session when the withdrawal occurs.

Basic Fee Refund Policy

Refunds cannot be made unless the student *officially* processes his/her withdrawal from the University or his/her drop from a course through the Office of the Registrar. Acceptance fees credited to the student's basic fee are not refundable. Other amounts paid and credited toward the basic tuition fee shall be refundable in full for students who withdraw for approved reasons (such as documented ill health or personal tragedy) prior to the first day of the semester. Withdrawal prior to the first of the semester, for unapproved reasons, shall be treated as having withdrawn during the first or second week.

Beginning with the first class day of the semester the basic tuition fee exclusive of the acceptance fee shall be refundable for students who withdraw in accordance with the following schedule:

1st or 2nd week	80%
3rd week	70%
4th week	60%
5th week	50%
6th week and thereafter	NO REFUND

Students who officially reduce their credit hour load so as to qualify for a lower basic tuition fee shall receive a refund of a percentage of the difference in accordance with the above schedule.

Policies on Repayments and Refunds

Refunds cannot be made after the close of the semester. Initiate refund requests

immediately by contacting the Office of the Registrar and the Student Accounts Office in the Learning and Research Center.

Repayment of the application fee or acceptance fee will not be made under any circumstances.

Repayments will not be made to students who are temporarily or indefinitely suspended.

PLEASE REFER TO THE SUMMER UNDERGRADUATE CATALOG FOR SUMMER SESSION FEES AND POLICIES.

Appeals to Fee and Refund Policies

Appeals to the policies governing fees and refunds shall be adjudicated by the Office of Administrative Services. If further appeal is desired, it will be made to the vice-president for administrative and fiscal affairs, whose decision will be final.

Housing Refunds

The \$100.00 room deposits are not refundable. When students change from resident status to commuter status after the beginning of the semester there is no room refund, except under the most compelling reasons and when the "Request for Cancellation of Occupancy Agreement" is properly filed in the Office of Housing and Residence Life.

Meal Refunds

The fee for meals may be refunded on a weekly prorated basis. Contact Student Accounts Office in the Learning and Research Center.

Graduation Fee

A graduation fee of \$30.00 is required of all degree candidates. No degree will be granted until this fee is paid. Checks should be drawn to Commencement Fund and delivered to the Office of Graduate Studies on or before the due date.

Parking Fee

The University collects a parking fee from students eligible to utilize on-campus parking facilities. For details,

consult the automobile regulations which accompany the fall semester student bills.

Library Card I.D. Card

In order to borrow books from the library, graduate students must present identification, either a library card or an I.D. (identification) card. The fee for either card is \$2.00. The I.D. card is purchased at the IGA Office, Sykes Union Building, the library card at the library.

Fees for Crossover Registration

Students who are admitted to graduate study (degree or non-degree) and are taking undergraduate courses or a combination of undergraduate and graduate courses are to schedule, register, and be billed for all such courses and combinations as graduate students and pay graduate course fees. Further, all such courses or combinations are to appear on a single graduate transcript which should include a code or legend which differentiates between undergraduate and graduate courses. Undergraduate courses appearing on a graduate transcript may or may not be acceptable for a degree program according to determinations made by the degree-granting department.

EXCEPTION: Graduate students who schedule and register for a full load (12 to 18 credits) of exclusively undergraduate courses are to be scheduled, registered, and billed as undergraduate students at undergraduate course fees.

Undergraduate students who elect to take graduate courses in their final semester in accordance with University policy will be billed at the undergraduate rate provided their course load falls within normal limits of eighteen hours. Credit earned and grades received will be recorded on the undergraduate transcript. Credits so earned may later be applied to a graduate program, subject to approval of the major department.

Undergraduate students who wish to begin graduate work and establish a graduate transcript must pay fees appropriate for graduate study for those courses to be applied toward a graduate degree.

Financial Aid

National Direct Student Loan Program

The National Direct Student Loan Program is a cooperative effort of the federal government and West Chester University which enables qualified students to secure educational loans under attractive conditions. Each borrower must.

1. Be enrolled or accepted in the institution participating in the program.
2. Carry at least one-half the normal full-time workload as determined by the institution.
3. Demonstrate financial need.
4. Maintain satisfactory academic progress in the curriculum.

The combined total of undergraduate and graduate loans cannot exceed \$12,000. Approval of loans depends upon the student's financial need and the availability of loan funds. A Pennsylvania State Grant and Federal Student Aid Application must be filed. For further information contact the director of financial aid.

Guaranteed Student Loan

This loan is a cooperative effort of private lending institutions and the state and federal governments which enables qualified students to secure long-term educational loans.

To be eligible for a loan, a student must:

1. Be accepted for enrollment in an approved institution or, if enrolled, be making satisfactory academic progress.
2. Be classified as at least a half-time student.

The maximum loan per academic grade level for full-time graduate students is \$5,000 or the cost of education, whichever is less. The total indebtedness permissible for all years of undergraduate and graduate study is \$25,000. Applications are secured at lending institutions (banks).

Graduate Assistantships

A limited number of graduate assistantships are available to qualified full-time graduate students. Interested students are advised to consult their department chairperson or graduate coordinator and

the Office of Graduate Studies and Sponsored Research to determine the availability of assistantships and their own eligibility. Assignments may involve part-time undergraduate teaching, participation in research projects, or other professional duties under faculty supervision.

Graduate assistants receive tuition remission and a stipend of \$3,100 for the academic year. Half-time assistantships are also available which cover six-credits of tuition remission and pay \$1,550 for the academic year. Applications are available in the Office of Graduate Study and Sponsored Research.

University Assistantships

A small number of highly-competitive awards of \$5,000 plus full tuition remission are available to entering graduate students who show particular academic promise. A special campus-wide committee reviews applications and nominations. To be considered, a candidate must submit all required admission materials before April 1. Criteria for the award include undergraduate academic record, high achievement on a standardized test (GRE, MAT), personal statement of academic and professional objectives, letters of recommendation, and a record of community service. Successful candidates are expected to present evidence of their research or creative efforts in the Spring following their appointment.

Institute for Women Graduate Grant

The Institute for Women at West Chester University offers an annual grant of \$500 to a woman graduate student who is accepted into a master's degree program at West Chester University. The award is based on high academic achievement, evidence of potential for contribution to the applicant's field of study, a record of leadership in school, community, church or other setting, and evidence of involvement in giving service to others. Applications, including reference forms, are available from the Office of Graduate Studies and Sponsored Research. Completed materials must be submitted by *May 1*. Only students who have filed all required

admission credentials and plan to enroll for a minimum of six graduate credits are eligible.

Work Study

Graduate students may apply through the Financial Aid Office for University or Federal work study funds.

Physical Education Department Scholarship

One \$300.00 scholarship is awarded to a graduate student in physical education. Applications should be submitted to the chairperson, Physical Education Department.

Professor Russell Sturzebecker Scholarship

The Professor Russell Sturzebecker Scholarship is a \$100 award made each semester to a "worthy and needy" graduate student in health and physical education. Through the kind generosity of Mr. John Unruh, the award is donated in honor of Professor Sturzebecker.

The recipient must be working full-time in the field of health and physical education and must be a part-time student at West Chester University working towards a master's degree in his or her professional field.

Graduate students who meet the above criteria are invited to submit a letter of application for the scholarship along with a resume of their professional and academic status. These documents should be submitted to Dr. Norman Cochran, Chairman of the Department of Physical Education, before November 15 for the first semester, and before March 15 for the second semester. Selections will be made by a committee of three graduate faculty members of the Department of Health and the Department of Physical Education.

Application forms can be secured in the office of Dr. Norman Cochran.

Grace Cochran Research on Women Award

An annual \$100 award in each division, graduate and undergraduate, is made for the best research on women. The award, sponsored by the Institute for Women, is

given on Research on Women Day held in April of each year. Dr. Cochran, an eminent teacher and scholar, graduated from the West Chester State Normal School in 1906.

Graduate Resident Directors

Opportunities to serve as graduate resi-

dent directors are open to married and single graduate students. Directors live in the University residence halls and provide direction for the personal, social, and educational development of the resident students. These positions are full-time graduate assistantships which offer a stipend, free tuition, and room and

board. Preference is given to students enrolled in a counseling or psychology program and to those with residence hall living experience. Applications can be made through the Office of Residence Life, Room 206, Sykes Union Building (Telephone 436-3305).



Academic Information and Regulations

The student's degree program must be completed within six years immediately prior to expected date of graduation. In cases of unusual circumstances, a request for an extension of time may be made through the appropriate department for

recommendation and consideration by the dean of graduate studies and sponsored research.

See also Degree Candidacy and Degree Requirements.

Classification of Students

Students are classified as:

A. Degree Students

1. *Full matriculation*—granted to a student who meets all admission requirements.
2. *Provisional matriculation*—may be granted to a student who:
 - a. Has not taken the Graduate Record Examination, the Miller Analogies Test, or a specialized entrance examination required by the department concerned.
 - b. Is unable to present all prerequisites required by the department.
 - c. Has certain other academic deficiencies.

- d. Fails to meet the academic average required for a degree student.

Note: Some programs do not grant provisional matriculation.

B. Non-Degree Students

1. *Certification*—applies to students taking course work to gain teacher certification.
2. *Professional growth*—students who take graduate course work but seek neither a degree nor certification.

Advisory System

All students will be assigned an advisor

in the department of their choice. Students are expected to take the initiative in scheduling interviews with the advisors during their course study.

Graduate Level Course Numbering System

- 500 Series Graduate level courses to which advanced undergraduates may be admitted.
- 600 Series Graduate courses not normally open to undergraduates.

Course numbering within a series is at the discretion of the department offering the courses.

Undergraduate Courses for Graduate Credit

Selected undergraduate courses have been identified by some departments that may be taken by graduate students (under departmental advisement) for graduate credit. See departmental listings.

Workshops

The number 598 following the departmental prefix indicates an "open" workshop which allows the departments to offer a variety of workshops under this designation. Such workshops may or may not carry graduate or undergraduate credit.

Student Load

The normal work load for a full-time student during the fall and spring semesters is 9 semester hours. The load may be increased if approval has been obtained from the student's advisor.

During the summer session, the normal work load is one semester hour of work for each week of enrollment. Generally, students carry only one course during the Pre or Post Session. If permission has been given by the dean of graduate studies, students may carry more than six semester hours of work in the Regular Session.

Course Credit by Examination

A graduate student may obtain course credit through examination. Application may be made through the Office of Graduate Studies and Sponsored Research within the first two weeks of the semester. The student's advisor must approve the application.

Transferring Credit from Other Institutions

West Chester students who wish to take course work at other institutions for credit at West Chester must first obtain approval from their chairperson or coordinator. Other restrictions and requirements are the same as those given in "Transfer of Credit," page 6.

Change of Status

A provisional degree student may petition for full graduate standing by making a written request to the Office of Gradu-

ate Studies and Sponsored Research. Credit earned as a provisional degree student or as a non-degree student may be accepted in a degree program only upon the recommendation of the student's advisor. Provisional degree students should consult their advisors well in advance in order to select work appropriate for transfer toward the degree.

Changing to Auditor Status

Before the end of the add period, a student may apply to become an auditor by completing a change-in-class-status form available in the Office of Graduate Studies and Sponsored Research and obtaining necessary approval.

Changes in Program

In order to change from one degree program to another, a student must submit an application to Office of Graduate Studies and Sponsored Research. No fee is charged.

Adding a Course

Students may add a course by filing a schedule change form in the Office of the Registrar during the Schedule Change period.

Dropping a Course

A. During the first week of a semester, or the equivalent time in summer sessions, a student may drop a course, thereby receiving no grade, by filing a schedule change form in the Office of the Registrar during the Schedule Change Period.

B. A grade of "W" will be entered on the academic record of any student who drops a course *between the end of the first week and before the end of the fifth class week* or the equivalent in summer sessions.

Students who drop a course *between the end of the fifth class week and the end of the tenth class week* will receive a grade of either WP or WF from their instructor, indicating that they were passing or failing the course at that time. A WP is not treated as a grade. A WF is computed as an F.

Students who do not plan to complete a course in which they are enrolled

must file a schedule change form in the Office of the Registrar. Students who fail to do this can expect to receive a grade of F for the course.

If a student withdraws before the sixth meeting of a class, the withdrawal will be viewed as a cancellation of enrollment, and the course will not be entered on the student's academic record. The student is then entitled to a refund. See Fees and expenses.

A student who attends six or more meetings of the class will not be eligible for a refund, and the course will be entered on the student's permanent grade record either as a WP or as a WF.

Withdrawal from Courses in Summer Sessions

Students wishing to withdraw from summer sessions should follow the same procedure for withdrawal from a course.

Withdrawal from the University

Students wishing to withdraw from the University or take a leave of absence are to go to the Office of the Registrar and follow the prescribed procedures. If illness or some other emergency interrupts the student's work, he or she must notify the Office of the Registrar at once. Unless a student withdraws officially, F grades will be recorded for unfinished courses. The student must also notify the Office of Graduate Studies and Sponsored Research.

Grading System

The following grading system is used:

Grade	Interpretation	Quality Points
A	Superior	4
B	Above Average	3
C	Average	2
D	Below Average (see below)	1
F	Failure	
NG	No Grade (see below)	
WF	Withdrew Failing	
WP	Withdrew Passing	
Aud	Audit	

Degree students must repeat any required course for which they have received a D or F grade. All grades received for a course will remain on the student's

record, but only the highest grade achieved will be used to calculate the cumulative average. A form for reporting repeated courses must be obtained from the Office of Graduate Studies and Sponsored Research, completed, and returned there.

Removing No Grades

Students must complete courses for which they have received a NG within the first nine weeks of the next semester or the NG will become an F. The student may file a request in the Office of Graduate Studies and Sponsored Research for an extension of this time limitation. This request must be endorsed by the faculty member who entered the NG. The nine-weeks requirement does not apply to independent study, thesis, research report, practicum, or recital credit.

Grade Reports

Grade reports are mailed to the student soon after the end of a semester or summer session. Students are reminded to check their reports against grade requirements and other regulations and to have their reports at hand when consulting with advisors.

Obtaining Transcripts

Transcripts of work taken at West Chester may be obtained from the Registrar's Office. A check or money order, payable to West Chester University, must accompany a written request which should include the period of attendance at the University, the curriculum pursued, social security number, and any change of name during enrollment. For transcript fee, see Fees and Expenses.

Changes in Name or Address

Students should immediately notify the Office of the Registrar, the Office of Graduate Studies and their department of any change of address or change in name.

Graduate Record Examination and Graduate Management Admission Test

Scores from the Graduate Record Examination or Graduate Management Admission Test are required for many degree programs. The prospective degree student should consult the appropriate

program outline and schedule a test prior to matriculation.

Both tests are administered by the Educational Testing Service, Box 955, Princeton, New Jersey 08540. Application forms and data may be obtained either by writing directly to ETS or the Counseling Center, Room 129, Lawrence Center. Application forms must be filed with the Educational Testing Service at least 15 days prior to the date of any examination.

The examinations may be taken at any of the testing centers designated by the Educational Testing Services. The GRE is administered periodically at West Chester—generally in October, December, February, April, and June.

Miller Analogies Test

Some degree programs require students to take the Miller Analogies Test which is administered each week at the Counseling Center, Room 129, Lawrence Center. It requires less than two hours and is given by appointment. Students requiring the test should telephone the center (215-436-2301) well in advance to schedule a test date. Appointments are often booked several months in advance.) Once a date has been established, the student must pay the \$23.50 fee in person at the time the test is taken at the Counseling Center.

The Comprehensive (Area of Specialization Examination)

A comprehensive examination covers the student's major field and is constructed, administered, and evaluated by the faculty of the student's major department or program. Candidates must apply for the examination with the department. They are not eligible to take the examination prior to the semester in which all courses in the concentration are earned.

Other Examinations

Other examinations may be required of degree students. All requirements given under the heading of the particular program should be carefully noted.

Research Requirements

Students should consult specific programs to determine whether independent study directed toward either the thesis or a research report is required, offered optionally, or omitted.

Application for Graduation

Each candidate for the Master's degree must submit the following items to the Office of Graduate Studies: 1) a form indicating intent to graduate, with a copy to the chairperson of the candidate's department; 2) a check for \$30, made payable to the "Commencement Fund;" 3) a Commencement Fund Invoice Form; 4) a Cap and Gown order form; and 5) a Public Relations news release form. All of these forms are available in a packet from the Office of Graduate Studies and Sponsored Research. Deadline dates for applying to graduate are: May graduation—February 1; August graduation—June 1; December graduation—October 1.

Submitting the Thesis for Binding

After approval by the department, each thesis **must** be typed in accordance with specifications which may be obtained from departmental offices or the Office of Graduate Studies and Sponsored Research. When the dean of graduate studies and sponsored research has approved the thesis, the student is responsible for transmitting all required copies to the library for binding.

Graduates Seeking Initial Certification

College graduates who wish to obtain teaching certification should consult with the Office of Certification, 104 Anderson Hall.

Permanent Certification

The Instructional II (Permanent) Certificate shall be a permanent certificate issued to an applicant who has completed three years of satisfactory teaching on an Instructional I Certificate attested to by the superintendent of the school district in which his or her most recent service was performed, or in the case of an intermediate unit, the executive director, or in the case of an approved non-public school, the chief school administrator. In addition the applicant shall have completed 24 semester hours of collegiate study at an approved four-year institution subsequent to the conferring of the baccalaureate degree.

IN-SERVICE PROGRAMS. The 24-semester-hour requirement may be satisfied, in whole or in part, through in-

service programs approved by the Secretary of Education of the Commonwealth.

Educational Specialist Certification

Commonwealth regulations also provide for certification as an educational specialist to those persons who successfully complete an approved program of study and have the recommendation of the training institution. The Educational Specialist Certificate is issued on two levels.

Educational Specialist I (Provisional). The Educational Specialist I Certificate is issued for entry into a professional position in the schools of the Commonwealth. The applicant must have completed an approved program of studies, possess a baccalaureate degree, and been recommended for certification by the preparing institution.

Educational Specialist II (Permanent). The Educational Specialist II Certificate is a permanent certificate issued to an applicant who has completed three years of satisfactory service on an Educational Specialist I Certificate, and who has completed 24 semester hours of post-baccalaureate or graduate study at a regionally approved institution. In addition, the applicant must have received the recommendation of the superintendent of the school district in which his or her most recent service was performed, or in the case of an intermediate unit, the executive director, or in the case of an approved non-public school, the chief school administrator.

Directory Information

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following categories of information: the student's name, addresses, telephone numbers,

date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will limit information which is made public to categories such as these but will not necessarily publish all such information in every listing.

Students who **do not wish** to have any or all of such "directory information" published without their prior consent must file notice—undergraduates in the Office of the Registrar and graduate students in the Office of Graduate Studies and Office of the Registrar. A signed, dated statement specifying items not to be published must be brought by the student to the appropriate office within the first fifteen calendar days after the beginning of the fall semester.

University Services and Student Living

Francis Harvey Green Library

The Francis Harvey Green Library offers the graduate student an excellent environment for study and research. The first section of the building was completed in 1966 and the six-story addition was opened in the fall of 1976. The library complex contains a fourth floor graduate study lounge, seminar rooms, a special collections room, a map room, instructional materials center with audio-visual facilities, periodicals collection, and micro-reading facilities.

The general collection of 440,000 volumes and 2,600 periodicals is augmented by an extensive micromedia collection representing more than 350,000 volumes including books, periodicals, newspapers, doctoral dissertations, maps, and an extensive collection of government publications. The total resources of over three quarters of a million volumes compares favorably with other major public and private research libraries in our geographic area. The special collections include the Chester County Collection of Scientific and Historical Books; the Normal Collection (publications by the

faculty and alumni); the Ehringer Collection (a collection of historical books on physical education); the Biographies of the Signers of the Declaration of Independence by John Sanderson; and the Shakespeare Folios. Also worthy of note are the children's literature, the instructional media, and music collections, and the Philips collection of autographed books.

The University library, through its staff of 14 professional librarians, provides the services required by students and faculty working in all areas covered by the university's instructional programs. Among the many services are reference, computerized on-line literature searching, interlibrary loan, and photoduplication.

Bureau of Research and Related Services

The Bureau of Research and Related Services fosters the development of basic, applied, and institutional research and provides facilities for the tabulation and analysis of research data. The research function of the bureau encom-

passes studies initiated by the faculty and administrative staff as well as studies jointly sponsored by the University and various educational agencies and foundations.

The bureau assists faculty and students in securing financial support for their research projects.

Data processing services include the tabulating and summarizing of information required by various administrative divisions of the university.

Housing

West Chester provides housing facilities for its graduate students on a limited basis for both the regular school year and all summer sessions. Upon acceptance to graduate school, students may contact the Office of Residence Life for on-campus housing. Residence hall rooms are all double-occupancy. Graduate students are expected to abide by the same housing regulations governing undergraduate students.

For assistance in locating an apartment or dwelling off-campus, students may

contact the Office of Off-Campus Life. Both the Office of Housing and Residence Life and the Office of Off-Campus Life are located in 206 Sykes Union Building, Rosedale Ave. Telephone 436-3305.

College Policy for Storm Closings

If storm conditions make it necessary to close the University, announcement will be made over most area radio and television stations which employ a system of code numbers. West Chester's numbers are:

- 853 Day classes for undergraduate students
- 2853 Graduate classes and other Evening classes

University Health Center

Two part-time physicians and four registered nurses are available to meet emergency and first-aid needs and to perform routine treatment of minor illnesses and minor surgical conditions. The University does not furnish other medical care or bear the costs of medical or surgical treatment or hospitalization. The community of West Chester has qualified physicians and excellent facilities at the Chester County Hospital. Health Services is located in Reynolds Hall and is open Monday through Friday from 8:00 AM until midnight and Saturday and Sunday from noon to 8:00 PM. Any emergencies during the night must go to the Chester County Hospital Emergency Room.

Only full-time graduate students carrying nine credits may take advantage of a group medical illness and accident insurance policy approved by the university. The choice of two policies is offered. One is on a nine-month basis only, strictly covering accidents or injuries. The second is on a twelve-month basis, covering both medical illnesses and accidents or injuries. These policies may be obtained at a minimal premium cost from the University Health Center.

Computing Services

Computing Services provides computing facilities for a wide variety of users — both academic and administrative. Many of the University's administrative functions, such as registration, grade reporting, and billing depend heavily on

the campus-wide transaction processing system which provides centralized access to University data from terminals located throughout the campus.

More importantly, computing is a vital instructional and research tool. Computing Services offers students and faculty a wide range of computing resources from mainframe to microcomputers, printers, plotters, graphics workstations, digitizers, and optical scanners. Many of these facilities are available at various locations about campus, but the Academic Computing Center on the ground floor of Anderson Hall serves as a focal point of instructional computing activity.

All computing facilities throughout the campus are joined by a data communications network. This network provides high speed access to all computers from any workstation on campus. Off-campus users can also access all computers through modem facilities connected to the network. A very high-speed Ethernet Local Area Network is used to provide file server access for the more than 100 IBM PCs in the Academic Computing Center. The communications network provides electronic mail capabilities for all campus workstations.

Major hardware facilities include a large IBM 4381 mainframe, a Xerox Sigma 9 (being phased out), a Hewlett-Packard 3000 minicomputer, a new AT&T 3B2 minicomputer, and IBM, Apple, and Commodore microcomputers. The University has been very fortunate in having industry recognize the importance of computing to our programs — the HP 3000, AT&T 3B2, and Commodore computers were all major donations from their respective companies.

Available software includes statistics packages such as SAS, SPSS, and Minitab; wordprocessing; database management systems; graphics packages; and all major computer languages. Computing Services provides many seminars for students, faculty and staff to familiarize the University community with the various software packages. Computing Services staff provides technical assistance with these packages. In addition, the CSC 101 Introductory Computing course offered by the Department of Mathematical Sciences to all students provides them with a working knowledge of several of the commonly used software packages.

In the near future, the library catalog

will be online to all workstations. This will enable students and faculty to search the library's holdings quickly for materials needed for their studies or research.

Speech and Hearing Clinic

Graduate students who need help in meeting minimal speech standards may use the services of the Speech and Hearing Clinic at no cost. The clinic is conducted by the Department of Communicative Disorders in Wayne Hall.

Career Development Center

The University provides career planning and placement services for its students and graduates.

The Career Development Center libraries provide information about careers, federal and state government positions, application forms, procedures, and job requirements.

The services available to graduate students include registration, development and mailing of credentials to prospective employers, career counseling, use of private facilities for on-campus interviews arranged by the applicant, and participation in a program of on-campus interviews arranged by the Career Development Center. A fee is charged for the development and service of a credentials file.

The Career Development Center is located in Lawrence Center.

Women's Center

The increasing number of women students entering West Chester University from high school or returning after some years in the home or job world necessitates a special center devoted to their particular problems. This is the major concern of the Women's Center. Located in Lawrence Center, the Women's Center provides a lounge area for conversation, study, peer advising, special interest programs (lectures, films, etc.). For more information call (215) 436-2122.

The Women's Center also runs a Drop-Off Center for the children of West Chester University students. The children are given an educational program of activities under professional supervision while their parents are in class. The center is licensed and approved by the state of Pennsylvania. Therefore, parents must register their children formally,

have medical and parental consent forms completed for admittance to the program and be familiar with the contents of the handbook for parents which is readily available at the Drop-Off Center, the Women's Center, and the office of the Dean of Students. For information concerning this service, call 436-2388 or 436-2122. During semester breaks and summer session recesses, call 436-3305.

Black Student Union

The Black Student Union, which was formed in 1971, is dedicated to the creation of a relevant atmosphere for black students at West Chester. Black Student Union membership is open to all West Chester students, faculty, and staff — regardless of race, color, or creed — who have a concern for the black cause.

A major purpose of the organization is to broaden and enhance the academic and social life for black students at the university. The union's democratically structured constitution provides for an executive board, elected by the membership. Applications for membership in the Black Student Union are reviewed by the executive board. Applications for membership may be made at the Black Student Union office in the basement of Recitation Hall.

Institute for Women

The Institute for Women is an independent body designed to represent the interests of women on the campus. It serves as the parent organization for the Women's Center, the Women's Studies Program, and the Title IX and Sex Discrimination Board. The institute is headed by a director and a board of directors.

Located in 211 New Main Hall, the institute sponsors a number of activities to enhance the self-esteem and career success of women at the University. The Institute annually awards a \$500 grant to an outstanding woman graduate student enrolled at the University. It also sponsors the Annual Grace Cochran Research on Women Award, named after a 1906 graduate of the West Chester State Normal School; it is designed to encourage women-centered research by students. The institute prepares periodic reports on the status of women at the University. For more information, students may call (215) 436-2464, 2122.

Veterans Affairs

Under the provisions of Title 38, West Chester University is an accredited university for the education of veterans. The University cooperates with the Veterans Administration to see that honorably separated or discharged veterans receive every consideration consistent with either degree or non-degree admission standards.

All veterans, certain dependents of disabled or deceased veterans, and war orphans who wish to obtain educational benefits under the appropriate public laws must register with the office of Veterans Affairs at initial registration. Veterans must renew their registration with this office at the beginning of each subsequent semester and each summer session. The Veterans Administration requires students who are veterans to schedule at least 12 s.h. per semester in order to receive full benefits under the G.I. bill.

A representative of the Veterans Administration is in the Financial Aid Office in the Learning and Research Center, Room 138, counseling and acting as liaison between students and the Veterans Affairs Office in financial and other matters.

Honor Societies

The University participates in sponsoring an active chapter of Phi Delta Kappa, the international graduate honor society. Membership in the West Chester chapter, which was organized in 1956, is by invitation and recognizes scholarship in all fields of education.

GRADUATE STUDENTS ARE, OF COURSE, ELIGIBLE TO PARTICIPATE IN THE ACTIVITIES OF THE UNDERGRADUATE HONOR SOCIETIES at West Chester if they are members. These organizations are: Alpha Epsilon, Alpha Kappa Delta, Alpha Lambda Delta, Alpha Mu Gamma, Alpha Psi Omega, Eta Sigma Gamma, Gamma Theta Upsilon, Kappa Delta Pi, Pi Gamma Mu, Phi Kappa Delta, Pi Kappa Delta, Pi Kappa Lambda, Pi Mu Epsilon, Phi Alpha Theta, Phi Delta Kappa, Phi Epsilon Kappa, Phi Mu Alpha Sinfonia, Phi Sigma Tau, Psi Chi, Sigma Alpha Iota, Sigma Tau Delta.

The Program Board

The Program Board is a major organization funded through the Intracollegiate Governmental Association's activity fee. Its goal is to develop an on-going series of co-curricular activities which complement the academic experience, providing events that are entertaining and intellectually fulfilling. The board strives to achieve this end through the mediums of the visual arts (film and video); the performing arts (lecture, theatre and dance); and contemporary performances (concert and cabaret).

Recreational Services

The Office of Recreational Services has the responsibility for providing leisure time activities for the University community. Recognizing that the needs of individuals differ, Recreational Services provides activities in four program areas.

The Recreational Sports (Intramurals) Program affords every student the opportunity to participate in individual and/or group competitive experiences. The Recreational Sports Program seeks to promote health and encourage the wise use of leisure time by the University community. The program is for those students who do not have the time, desire, ability or physical attributes to take part in intercollegiate athletics. Regardless of ability, each participant may successfully take part in over twenty-three individual and team sports.

For members of the student body who enjoy organized sports other than varsity teams, the *West Chester University Sports Club Program* is an ideal program. This program is for both the highly experienced player and for those who are merely interested in learning a new sport for fun or skill. Joining a club provides opportunities for instruction, coaching, socialization, and fun. Physical education majors receive a sports credit through participation in a club program. West Chester University sponsors the following clubs: boxing, fencing, ice hockey, karate, racquetball, men's and women's rugby, ski, women's soccer and water polo.

Outdoor recreation opportunities are conducted through the Outdoor Adventure Center which provides for participation in low impact, low cost, and people powered outdoor activities. Canoeing, bicycle touring, rafting, cav-

ing, cross country skiing, backpacking and summer/winter camping are among the many activities offered through the Outdoor Adventure Center for both novices and seasoned outdoor adventurers.

For those persons who are not interested in participating in formal recreation activities, facilities are made available to the student body for *free play and open recreation*. To add spice to the program, special events are conducted throughout the year and are open to the University community.

Counseling Center

Located on the second floor of Lawrence Hall, the Counseling Center provides counseling services without charge to all undergraduate and graduate students at West Chester. The faculty in the Counseling Center includes licensed psychologists who are experienced in working with college students. Students may discuss their concerns, feelings, hopes, and interests freely and in strict confidence.

COUNSELING SERVICES:

Since the Counseling Center provides services for a wide range of concerns, each student's experience will be tailored to his or her request. Students may want to clarify their vocational or educational choices, improve their interpersonal skills, or resolve personal conflicts.

Their choice of approach could include one or more of the following counseling center services.

1. *Individual vocational counseling* consists of a one-to-one counseling experience which focuses upon the student's choice of major and vocation. Vocational choice is most solid when it is the outgrowth of understanding one's self. Such understanding requires time and thought and involves the student's identifying his or her own style, values, interests, and abilities. Psychological testing as well as discussion often enhances self understanding.
2. *Individual counseling for personal problem solving* consists of a one-to-one counseling experience where the focus is upon resolving personal conflicts, conflicts with others, and upon improving the student's expertise at making personally meaningful choices. It may also help some people avoid decisions which restrict their personal growth and undermine their well-being.
3. *Group counseling* consists of a small group of peers with one or more counselors. Such groups meet usually once weekly to provide group members with constructive learning about themselves. Groups often have a spe-

cific focus. Past groups have focused upon:

- Elimination of self-defeating behavior
 - Assertiveness training
 - Anxiety management
 - Test anxiety reduction
 - Weight reduction
 - Career exploration
 - Procrastination — how to avoid it
4. *Testing* — Information from psychological tests can be useful in increasing self understanding and can often assist in the process of vocational and educational decision making. The Counseling Center faculty are trained in the administration and interpretation of psychological tests and the student and his or her counselor can decide whether testing might be helpful. Arrangements can also be made at the Counseling Center for taking the Graduate Record Exam and the Miller Analogies Test — two graduate school admissions tests.
 5. *Consultation Services* — The Counseling Center faculty also are available to consult with staff and faculty members of the college community. They can assist with crises, program planning, group and interpersonal communications, as well as referrals to other agencies.

Structure of the University

FACULTY OF ARTS AND SCIENCES

Anthropology & Sociology	History
Art	Mathematical Sciences
Biology	Philosophy
Chemistry	Physics
English	Psychology
Foreign Languages	Speech Communication & Theatre
Geology and Astronomy	

FACULTY OF PROFESSIONAL STUDIES

SCHOOL OF BUSINESS & PUBLIC AFFAIRS

Accounting	Economics
Business Administration	Government & Planning
Criminal Justice	Social Work

SCHOOL OF EDUCATION

Childhood Studies and Reading	Instructional Media
Counselor, Secondary & Professional Education	Special Education

SCHOOL OF HEALTH SCIENCES

Communicative Disorders	Nursing
Health	Physical Education

SCHOOL OF MUSIC

Instrumental Music	Music History
Keyboard Music	Music Theory & Composition
Music Education	Vocal & Choral Music

Programs of study and course offerings

For the convenience of readers, the arrangement of course offerings is alphabetical by department or area of study.

Students may obtain a typical approved sequence of courses for any of the programs from the office of the appropriate school or department.

All courses, course substitutions, and course sequences are subject to change.

Because many program descriptions refer to courses offered by other departments, the following guide to course prefixes is provided.

Guide to Course Prefixes (symbols) Used in this Catalog

PREFIX DEPARTMENT/PROGRAM

ACC	Accounting	ELO	Instrumental Music	PEC	Instrumental Music
ADM	Administration, Leadership for Women	ENG	English	PED	Physical Education
AER	Aerospace Studies	ESL	Geology and Astronomy	PEL	Physical Education
ANT	Anthropology and Sociology	ESS	Geology and Astronomy	PEN	Instrumental Music
ARH	Art	FIN	Economics	PHE	Geology and Astronomy
ART	Art	FLM	English	PHI	Philosophy
ASA	American Studies	FRE	Foreign Languages	PHL	Physics
ASH	History, American Studies	GEO	Government and Planning	PHR	Physics
BEN	Instrumental Music	GER	Foreign Languages	PHS	Physics
BIL	Biology	GRE	Foreign Languages	PHY	Physics and Pre-Engineering
BIO	Biology	HAR	Keyboard Music	PIA	Keyboard Music
BLA	Business Administration	HEA	Health	POR	Foreign Languages
BRC	Instrumental Music	HEB	Foreign Languages	PSC	Government and Planning
BUS	Economics	HIS	History	PSY	Psychology
CBA	Instrumental Music	HPE	Physical Education	RES	Counselor, Secondary and Professional Education
CHE	Chemistry	HUM	Women's Studies	RUS	Foreign Languages
CHO	Vocal/Choral Music	ICO	Instrumental Music	SBA	Instrumental Music
CLS	Comparative Literature Studies, English	IND	Geology and Astronomy	SCB	Biology
COR	Instrumental Music	INS	Instrumental Music	SCC	Chemistry
CRJ	Criminal Justice	ITA	Foreign Languages	SCE	Geology and Astronomy
CRL	Chemistry	JEN	Instrumental Music	SEN	Instrumental Music
CSC	Mathematical Sciences	JRN	English	SOC	Anthropology and Sociology
DRC	Instrumental Music	KEN	Keyboard Music	SPA	Foreign Languages
ECE	Childhood Studies and Reading	LAN	Foreign Languages	SPC	Speech Communication and Theatre
ECO	Economics	LAT	Foreign Languages	SPP	Communicative Disorders
EDA	Special Education	LIN	Foreign Languages	SSC	Social Studies, Ethnic Studies, Peace and Conflict Studies
EDC	Counselor, Secondary and Professional Education	LIT	English	STA	Mathematical Sciences
EDE	Childhood Studies and Reading	MAB	Instrumental Music	STC	Instrumental Music
EDF	Counselor, Secondary and Professional Education	MAC	Keyboard Music	SWO	Social Work
EDG	Childhood Studies and Reading	MAK	Keyboard Music	SYO	Instrumental Music
EDH	Counselor, Secondary and Professional Education	MAP	Instrumental Music	THA	Speech Communication and Theatre
EDM	Instructional Media	MAS	Instrumental Music	UNI	Orientation
EDO	Counselor, Secondary and Professional Education	MAT	Mathematical Sciences	VOC	Vocal/Choral Music
EDP	Counselor, Secondary and Professional Education	MAW	Instrumental Music	VOI	Vocal/Choral Music
EDR	Childhood Studies and Reading	MBA	Instrumental Music	WEN	Instrumental Music
EDS	Counselor, Secondary and Professional Education	MGT	Business Administration	WIN	Instrumental Music
EDU	Counselor, Secondary and Professional Education	MHL	Music History	WWC	Instrumental Music
EDX	Counselor, Secondary and Professional Education	MKT	Business Administration		
ELB	Instrumental Music	MSI	Military Science		
		MTC	Music Theory & Composition		
		MTE	Mathematical Sciences		
		MTL	Mathematical Sciences		
		MUE	Music Education		
		MWJ	Music Theory and Composition		
		MWP	Keyboard Music		
		NSG	Nursing		
		ORG	Keyboard Music		
		PAD	Government and Planning		
		PEA	Physical Education		

Administration

Dr. Milne, *Program Coordinator*

CONCENTRATION ADVISORS

Dr. Mustalish, *Health Services Administration*

Dr. Moore, *Psychology/Personnel Administration*

Mr. Burton, *Public Administration*

Ms. Hodgins, *Social Work*

Mr. Bielski, *Urban and Regional Planning*

Dr. Rengert, *Leadership For Women*

Dr. Youmans, *Sport and Athletic Administration*

g. Sport and Athletic Administration

Required: PED 580, HPE 600, PED 601, 602, 604, 606, 607

Concentration advising, see page 71

h. Urban and Regional Planning

Required: ADM 500, GEO 525

Twelve credits under advisement, see page 49

*Refer to departmental listings of course descriptions.

Degree students may also receive the certificate after completion of the administrative core requirements.

To be eligible for the certificate, students must have completed each core course with a minimum grade of B. Applications are to be submitted with a completed grade report.

CERTIFICATE IN ADMINISTRATION

Persons who wish to fulfill only the Administrative Core may do so and receive a Certificate in Administration. Those interested in this option must meet the same admission criteria as full degree students.

ADMISSION

Applicants must submit undergraduate transcripts demonstrating quality performance in their undergraduate majors, scores from the Miller Analogies Test, Graduate Record Examination or Graduate Management Admissions Test, an essay outlining career plans, and two reference forms from professional supervisors.

DEADLINE FOR APPLICATIONS. Normally, the application process must be completed and admission granted prior to course enrollment for the fall or spring semester. With the approval of the M.S. in Administration program coordinator, late applicants may be permitted to register for their first semester of coursework, pending completion of the admission requirements. Subsequently, permission to register for coursework will not be granted to those who fail to submit required application materials or who are denied admission to the program itself.

COMPREHENSIVE EXAMINATION

No comprehensive examination is required for the administrative core. However, each of the six administrative core courses must be completed with a grade of at least a B.

Selected concentrations in the M.S. in administration program do require comprehensive examinations. Students are obligated to comply with concentration comprehensive examination policies in effect on the date of their admission to the program. Each student must clarify the requirement for his/her program concentration with the appropriate departmental advisor.

MASTER OF SCIENCE IN ADMINISTRATION

The Departments of Economics, Health, Government and Planning, Psychology, Physical Education, and Social Work offer programs leading to a Master of Science in Administration with areas of concentration in (a) Economics and Finance, (b) Health Services Administration, (c) Leadership for Women, (d) Public Administration, (e) Psychology Personnel Administration, (f) Social Work, (g) Sport and Athletic Administration, and (h) Urban and Regional Planning. This degree is designed for persons with differing undergraduate degrees who are interested in administrative careers in both private and public organizations. The program consists of an 18-hour administrative core of courses plus 18-24 semester hours of courses in a selected concentration area as follows:

1. Administrative Core: ADM 501, 502, 503, 504, 505, 506
2. Area of Concentration*
 - a. Economics and Finance
Required: ECO 510, 525, 530, 547, FIN 501, 544
Concentration advising, see pages 26-27
 - b. Health Services Administration
Required: HEA 630, 631, 632, 611
Six credits under advisement, see page 52
 - c. Leadership for Women
Required: ADM 530, 531, 533, PSY 565
Six credits under advisement, see page 58
 - d. Public Administration
Required: PSC 500, 600
Twelve credits under advisement, see page 49
 - e. Psychology Personnel Administration
Required: PSY 503, 504
Twelve credits under advisement, see page 74
 - f. Social Work
Eighteen to twenty-four credits under advisement, see page 76

COURSE DESCRIPTIONS

ADMINISTRATION

Symbol: ADM

501 Administrative Theory and Environment (3) Organizational theory and practice in public and private institutions. Legal framework for administration, application of public policy, sociolegal issues, and values of society considered.

502 Computers for Managers (3) Quantitative applications in administration. Computer as a management tool. Computer basics and management information systems.

503 Accounting for Administrators (3) A study of accounting principles and procedures for both profit and non-profit organizations. Emphasis is on the concepts and effects of accounting policies and procedures with which the administrator will normally come into contact.

504 Communication for Administrators (3) Development of communication skills for the effective writing of letters, memos, reports and proposals. Structuring and conducting meetings and presentations.

505 Organizing Human Resources (3) Administrative models and concepts of human behavior in

formal organizations and decision processes. Personnel administration. Effective selection, utilization, and development of human resources for the total organization. Affirmative action and equal opportunity.

506 Budgeting and Fiscal Management (3) Budget forecasting and implementation. Analysis, planning and control of sources and allocations of funds. Measurement and control mechanism such as Program Planning Budgeting System (PPBS), Zero-Base Budgeting (ZBB), and Management by Objectives (MBO) emphasized.

Anthropology and Sociology

Dr. Luck, *Chairperson*

PROFESSORS

Marshall J. Becker, Ph.D., *University of Pennsylvania*

Harvey C. Greisman, Ph.D., *Syracuse University*

Glenn W. Samuelson, Ed.D., *University of Maryland*

ASSOCIATE PROFESSORS

Patrick W. Luck, Ph.D., *University of Connecticut*

Dimitri I. Monos, Ph.D., *University of Pennsylvania*

Martin Murphy, A.M., *University of Michigan*

Paul A. Stoller, Ph.D., *University of Texas*

ASSISTANT PROFESSORS

Jon A. Cowen, A.M., *University of Pennsylvania*

Bonita Freeman-Whitthoft, Ph.D., *University of Pennsylvania*

The Department of Anthropology and Sociology has suspended until further notice the offering of its M.A. and M.Ed. programs in anthropology and sociology. During the term of this suspension no students will be admitted as degree candidates to the department. It, however, will offer on a limited basis graduate courses in anthropology and sociology to graduate students from other areas as well as to advanced undergraduate majors and non-majors.

COURSE DESCRIPTIONS

ANTHROPOLOGY

Symbol: ANT

512 Ethnographic Studies (3) Intensive survey of a single culture area. Area for study announced in advance.

515 Problems in Anthropology (3) Perennial issues in anthropological explanation.

555 Proseminar in Urban Anthropology (3) Application of techniques of anthropological field investigation to the analysis of urban environments.

580 (also LIN 580) Language and Culture (3) See LIN 580.

595 Seminar in Anthropology (3) PREREQ: Permission of instructor.

599 Independent Studies in Anthropology (1-3)

PREREQ: Approval of instructor and department chairperson.

SOCIOLOGY

Symbol: SOC

521 Youth and Delinquency (3) Juvenile delinquency as a form of social deviance; theories of causation and control.

531 Social Problems (3) Analysis of how things come to be defined as social problems.

532 History of Sociological Theory (3) Development of sociological thought.

533 American Minorities (3) Racial and ethnic group relations.

538 Crime and Justice (3) A sociological analysis of criminal law, crime statistics, causes of crime, and the administration of criminal justice.

539 Deviance and Control (3) An advanced analysis of social deviance and control.

540 (also LIN 540) Sociolinguistics (3) See LIN 540.

543 The Sociology of Complex Organizations (3) The sociological analysis and study of complex organizations. PREREQ: Advanced undergraduate or graduate standing and at least six credits in sociology including SOC 200 or its equivalent or consent of instructor.

550 Seminar in Sociology (3) PREREQ: Permission of instructor.

590 Independent Studies in Sociology (1-3) PREREQ: Approval of instructor and department chairperson.

Art

Mr. White, *Chairperson*

PROFESSOR

Pamela Hemphill, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

Jack G. Hawthorne, M.F.S., *University of Pennsylvania*

Victor Lasuchin, M.F.A., *University of Pennsylvania*

Gus V. Sermas, M.F.A., *University of Wisconsin*

Carolyn G. Simmendinger, M.F.A., *Tyler School of Art*

Ruth I. Weidner, M.A., *University of Delaware*

Linwood J. White, M.F.A. *University of Pennsylvania*

ASSISTANT PROFESSORS

Richard E. Blake, B.F.A., *Tyler School of Fine Arts*

Ronald N. Defino, M.F.A., *Tyler School of Art*

William J. Rarick, M.F.A., *Tyler School of Art*

Bernice Shapiro, M.Ed., *Tyler School of Art*

INSTRUCTOR

John Baker, B.A., *West Chester University*

COURSE DESCRIPTIONS

ART HISTORY

Symbol: ARH

576 Primitive Art (3) Ritual and myth from pre-history to early Ancient Near East; contemporary primitive cultures; psychological and psychoanalytical interpretations; comparison with phenomenon of primitivist interests of the West.

580 European and U.S. Art (3) For the student who is deficient in art history and wishes to augment his or her field (e.g. social studies, literature, philosophy). Analysis of the major forms and styles from Renaissance to present.

595 Latin-American Art (3) Interpretation of 20th-century environment architecture and decoration with relationship to cultural development in Latin America

596 Introduction to Aesthetics (3) Introduction to the aesthetic theories and art forms in the context of social change, philosophy and sciences, creation, and the creative process

597 History of Aesthetics and Art Criticism (3) Philosophical theories of art production from Ancient Greece through the 19th century. Relationship of aesthetic experience to forms and to technical, psychological, and cultural values

ART

Symbol: ART

516-517 Painting I-II (3) (3) Individual expression in painting. Experimentation is encouraged

520 Painting: Independent Projects (3) Individualized instruction at advanced level. Development of professional, personal, and imaginative statements leading to formation of student's pictorial identity

521 Sculpture I (3) Introduction to sculpture via the fundamentals of 3-D design. Use of basic tools, development of skills, techniques, and processes in creating sculpture. Projects in plaster, clay, stone, wood.

522 Sculpture II (3) Advanced problems in sculpture; continuing exploration of form, structure, process. Use and maintenance of tools. Materials; their origins and supply sources. Projects in clay, stone, wood, plastic, plaster, wire, new materials.

525 Multi-Media Workshop in Sculpture III (3) Fabrication methods and techniques, using wood, plastic, various metals

531 Ceramics I (3) Ceramic techniques and aesthetics of clay, leading toward development of creative expression. Exercises in hand-built and wheel-thrown forms. Formulation of clay bodies, glaze bodies, and calculations, loading and kiln firing techniques. Also, basic exercises for elementary and secondary teaching levels.

532 Ceramics II (3) Further development of expression for those who have mastered basic ceramic processes. Research in clay bodies, glaze chemistry, firing techniques, kiln construction. Creative problems.

533 Ceramics: Studio Problems (3) Individual projects involving the total or specialized areas of the ceramic process. Practical experience through helping to maintain the ceramic complex

534 Ceramics: Independent Projects (3)

541 Printmaking: Relief, Independent Projects (3) Advanced study with individualized instruction. Collagraph, lino-cut, woodcut techniques. Combining various printing processes with relief printmaking

542 Printmaking: Silk-Screen, Independent Projects (3) Advanced study with individualized instruction. Technical and aesthetic possibilities including photo-stencil, incorporation of silk-screen with other printmaking processes.

543 Printmaking: Intaglio, Independent Projects (3) Advanced study with individualized instruction. Relief etching and basic intaglio techniques for work on metal plates. Drypoint, straight line etch, soft and lift grounds, aquatint, engraving. Combining various printing processes with intaglio printmaking.

544 Printmaking: Lithography, Independent Projects (3) Advanced study with individualized instruction. Aluminum plate and stone lithography techniques. Combination of various printing processes with lithography.

546 Drawing: Independent Projects (3) Advanced study with individualized instruction. Emphasis on professional, personal, and imaginative statements leading to student's iconographic identity

547 Two-Dimensional Design: Independent Projects (3) Advanced study with individualized instruction. Design elements and analytical principles of organization. Emphasis on professional, personal, and creative statements leading to formation of professional employment.

549 Graphic Design: Independent Projects (3) Advanced study with individualized instruction. Developing means for solving communication problems of diverse character with emphasis on practical application. Projects are refined into portfolio presentations for professional employment.

551 Art Education in the Elementary School (3) Current trends in art education for the elementary school

565 Crafts: Independent Projects (3) Projects involve varied media and their techniques and processes. Exploration of 2-D and 3-D crafts and their application in recreational and elementary school programs.

566 Crafts: Weaving I (3) Basic techniques of weaving are explored with emphasis upon fabric design and craftsmanship.

567 Crafts: Weaving II (3) Provides opportunities for the weaver to further explore and develop skills as a designer. Emphasis is placed on the interrelationships between functional materials and design processes

568 Crafts: Weaving III (3) To resolve advanced weaving problems in projects of an individual, creative nature leading to practical application.

590 Independent Studies in Art (1-3)

Biology

Dr. Romig, *Chairperson*

Dr. Cinquina, *Coordinator for Graduate Studies*

PROFESSORS

Carmela L. Cinquina, Ph.D., *Rutgers-The State University*

William R. Overlease, Ph.D., *Michigan State University*

Ronald F. Romig, Ph.D., *University of Delaware*

Richard I. Woodruff, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

Robert W. Bernhardt, M.S., *Syracuse University*

William C. Brown, M.Ed., *Bloomsburg University*

Georgann Cullen, M.A., *Kent State University*

Marianne K. Eleuterio, Ph.D., *University of Delaware*

Jack Waber, Ph.D., *University of Hawaii*

ASSISTANT PROFESSORS

G. Winfield Fairchild, Ph.D., *University of Michigan*

Frank Eliot Fish, Ph.D., *Michigan State University*

Gustave Mbuy, Ph.D., *University of Cincinnati*

Martha A. Potvin, Ph.D., *University of Nebraska*

Elise Triano, Ph.D., *Thomas Jefferson University*

The Department of Biology offers two degree programs, one leading to the Master of Arts and one leading to the Master of Education in biology. Both of these programs are currently under revision. For current information please contact the graduate coordinator.

Admission to the Programs

Applicants for either program must meet the general requirements for admission to degree study at West Chester University, and must submit scores for the verbal, quantitative and advanced biology sections of the Graduate Record Examination.

DEADLINE DATES FOR APPLICATIONS: April 15 for all students wishing to be considered for graduate assistantships for the following September; August 1 for the fall semester; November 1 for the spring semester.

Admission to the Master of Arts Program

Applicants must present a minimum of two semesters of general college chemistry, two semesters of organic chemistry,

one semester of calculus, and at least 24 semester hours of coursework in the biological sciences at the undergraduate level.

Admission to the Master of Education Program

Applicants must present a minimum of two semesters of general college chemistry, one semester of organic chemistry, and at least 18 hours of biological sciences at the undergraduate level.

Degree Candidacy

Students who intend to obtain a master's degree in biology must apply for degree candidacy by the time they have completed 15 hours of graduate credit in the department. The application forms are obtained from the Office of Graduate Studies and Sponsored Research. In order to qualify for admission to degree candidacy the student must:

1. Have completed a minimum of 12 hours of graduate courses in biology with an average of B (3.0) or better.
2. Have removed any provisional conditions applied at the time of admission to graduate study.
3. Have performed satisfactorily on the departmental qualifying examination, which is administered in the fall and spring semesters. Students should notify the department graduate coordinator in writing of their intention to take

the examination by October 1 of the fall semester and by February 1 of the spring semester.

REQUIREMENTS FOR THE MASTER OF ARTS IN BIOLOGY

30 Semester Hours

The candidate for the M.A. in biology must complete a minimum of 30 semester hours of which at least 24 hours must be taken in biology. Six credits hours or two courses may be taken in allied departments under advisement and with the approval of the graduate coordinator. The successful candidate must perform well in a final oral examination and thesis defense.

REQUIREMENTS FOR THE MASTER OF EDUCATION IN BIOLOGY

34 Semester Hours

The candidate for the M.Ed. must complete 34 hours of graduate work, 12 of which must be taken in professional education courses in accordance with the requirements of the School of Education. The remaining coursework must be taken in biology. Under advisement three hours may be taken in an allied science. The successful candidate must perform well in a comprehensive final oral examination.

COURSE DESCRIPTIONS* BIOLOGY

Symbols: BIO

Numbers in parentheses at end of course descriptions indicate hours of lecture and hours of lab respectively.

520 Seminar in Cellular Biology (2) Oral and written reports on topics drawn from such areas as cellular physiology, cytology, genetics, histology, and microbiology.

521 Cell and Molecular Biology (4) A lecture and laboratory course that studies the molecular basis of cellular life. Eukaryotic cell structure and function will be emphasized. (3-3)

528 Animal Histology (3) Structure and function of animal tissues and organs.

*Prerequisite for graduate course attendance is admission to a degree program or permission of the graduate coordinator.

530 Human Genetics (3) Basic genetic theories as applicable to the study of humans; chemical basis of inheritance; biochemical variation; cytogenetics; somatic cell developmental, behavioral, and population genetics of man; immunogenetics; quantitative inheritance, treatment and prevention of genetic disorders; relationships between viruses, genes and cancer; social, legal and psychological aspects of human genetics. PREREQ: Introductory genetics.

547 Growth and Development (3) Discussion course dealing with current topics in the field of developmental biology. PREREQ: Genetics and embryology recommended.

548 Animal Development (4) Introduction to principles of animal development with laboratory study of selected vertebrate embryos.

552 Comparative Parasitology (3) Morphology and life cycles of the important parasites of man and animals; epidemiology, pathogenesis, and methods of treatment and control. (2-3)

554 Mycology (3) An introductory course including a general study of the biology of fungi and a survey of the field of medical mycology.

556 Virology (3) Molecular biology of bacterial, plant and animal viruses; virus classification, ultrastructure, mechanisms of replication, and effects of virus infection on host cells. PREREQ: Genetics.

560 Seminar in Molecular Biology (2) Oral and written reports on topics drawn from such areas as biochemistry, biophysics, and microbiology.

564 Microbial Physiology (3) Physiology and biochemical variations are studied in the prokaryotes and lower eukaryotes. PREREQ: Microbiology.

565 Immunology (4) Immunoglobulin structure and function, nature of antigens, cell-mediated immunity, hypersensitivity, regulation of immunity, immunological diseases. Laboratory experience in immunological techniques. (3-3) PREREQ: Microbiology

566 Plant Physiology and Biochemistry (3) Plant-cell physiology including respiration, photosynthesis, enzyme catalysis, auxins, membrane phenomena. (2-3) PREREQ: college botany.

568 General Animal Physiology (3) General theoretical and applied principles of the physiology of various animal cells, tissues and organs with an emphasis on homeostasis and mammalian physiology. (3-3)

570 Seminar in Population Biology (2) Oral and written reports on topics drawn from such areas as biogeography, ecology, evolution, and natural history.

575 Limnology (3) The measurement and analysis of the physical, chemical and biological

properties of freshwater environments, with emphasis on lake ecosystems.

580 Light Microscopy and the Living Cell (3) Theory and practical techniques of all types of light microscopy and their uses in investigating living cells. Also includes such techniques as microinjection, cell electrophysiology and others. Strong emphasis on "hands on" work with equipment.

584 Epidemiology (3) A general study of the epidemiology of both infectious and environmentally related health problems. Methods of interviewing and data collecting are also included. PREREQ: Bio 214 or equivalent

585 Systematic Botany (3) Principles of taxonomy and biosystematics. Selected plant families from tropical and temperate zones. Each student develops a proficiency in the use of modern flora and knowledge of the common species of the spring flora of Chester County.

591 Independent Study (1-3) Individual research under the guidance of a faculty member. PREREQ: Approval of the graduate coordinator.

592 Independent Study II (1-3) Individual research under the guidance of a faculty member. PREREQ: Approval of the graduate coordinator.

593 Independent Research III (1-3) Individual research under the guidance of a faculty member. PREREQ: Approval of the graduate coordinator.

610 Thesis (6)

BIO 421 (3) Cell and Molecular Biology has been approved for graduate credit.

Business

MASTER OF BUSINESS ADMINISTRATION

Dr. T. Naggar, *M.B.A., Coordinator*

The Departments of Accounting, Business Administration, and Economics jointly offer a program leading to the Master of Business Administration with areas of concentration in (a) Accounting; (b) Economics/Finance; (c) General Business; (d) Management; (e) Management Information Systems; and (f) Small Business Management. This degree program is designed for individuals of diverse academic background, provided that they demonstrate competency in fundamentals of accounting, economics, management, marketing, and quantitative business analysis. The program consists of twenty-seven (27) semester hours of core courses plus nine (9) semester hours of courses selected for personal interest. Students may choose to complete a master's thesis in lieu of six (6) semester hours.

1. Required Core:

ACC 501 Managerial Accounting and Control
CSC 502 Management Information Systems
ECO 547 Managerial Economics
FIN 501 Financial Management
MKT 501 Marketing Management
MGT 501 Management and Organization Theory
MGT 502 Business Communications
MGT 503 Business Policy and Strategy

2. Optional Core: One of the following:

BLA 501 Legal Environment of Business
MGT 504 Human Resources Management
MGT 505 Production and Operations Management
MGT 506 Business and Society
MGT 507 International Business

BLA 501 is required for those who have not completed an undergraduate law course.

3. Area of Concentration:

Accounting

Required:

ACC 510 Current Accounting Concepts
ACC 520 Accounting Information Systems
ACC 530 Accounting Planning and Research

Economics/Finance

Required:

ECO 510 Applied Econometrics
ECO 525 Contemporary Monetary Theory & Financial Institutions
FIN 544 Investment Analysis—Portfolio Management

General Business

Required:

9 credit hours of MBA or other graduate courses chosen with consent of MBA director.

Management

Required:

MGT 508 Management Decision-Making in Complex Systems
MGT 509 Organizational Development
MGT 510 Special Topics in Management

Management Information Systems

Required:

Courses to be selected with approval of MBA director from CSC course offerings. (See Mathematical Sciences)

Small Business Management

Required:

MGT 511 Small Business Entrepreneurship
MGT 512 Management of Small Business Enterprises
MGT 513 Field Studies in Small Business Management

ADMISSION

Applicants must submit undergraduate transcripts demonstrating quality performance in their undergraduate degree; appropriate scores from either Graduate Management Admissions Test, Graduate Record Examination, or Miller Analogies Test; an essay on career plans; a current resume; and two letters of recommendation. Those applicants who wish to challenge the undergraduate prerequisite courses, or obtain credit for work experience satisfying the undergraduate requirements should discuss this option with the program director. Registration for MBA courses must be approved by the MBA director.

DEADLINE DATES FOR APPLICANTS

Applicants must submit the above information by May 1st for Summer Sessions and Fall Semester; or November 1st for Spring Semester.

Department of Accounting

Mr. Galbraith, *Chairperson*

PROFESSORS

Richard Baker, Ph.D., *Pennsylvania State University*
Ali Naggar, Ph.D., *University of Oklahoma*

ASSOCIATE PROFESSOR

Eugene C. Hassler, M.B.A., *Indiana University*

ASSISTANT PROFESSORS

Clyde J. Galbraith, M.B.A., *Drexel University*
Carl M. Smith, M.B.A., *Temple University*

The Department of Accounting, in cooperation with the Department of Business Administration and the Department of Economics, offers a program leading to a Master of Business Administration.

COURSE DESCRIPTIONS

ACCOUNTING

Symbol: ACC

500 Financial Accounting (3) A study of financial statements and financial accounting valuation for assets, liabilities, stockholders equity, income, and expense. Designed for graduate students with no previous exposure to accounting. Managerial Accounting (ACC 501) is a required course in the MBA Program and requires knowledge of financial accounting concepts. For those students admitted to MBA studies without the requisite background, this course will fulfill the prerequisite requirement for ACC 501.

501 Managerial Accounting and Control (3) A

course in advanced managerial accounting focusing on accounting methods and techniques useful in making business decisions. Included are measurements of divisional performance, revenue and pricing decisions, product decisions, and capital budgeting. Control systems and techniques are examined from a managerial perspective. Familiarity with basic accounting and economic principles is assumed.

510 Current Accounting Concepts (3) Financial accounting with primary emphasis on current professional accounting principles and practices. Topics to be covered include income determination, asset valuation, and financial statement evaluation. This course will provide a bridge from theory to practice.

520 Accounting Information Systems (3) Theoretical and practical aspects of the development and management of accounting information systems in businesses and other organizations. Development of a general model for use in system design and evaluation with subsequent study focusing on practical applications of the model utilizing case studies and computer related projects.

530 Accounting Planning and Research (3) Development of alternative strategies used by business management to minimize the impact and amount of income tax liability of the firm. Topics to be covered include tax planning, current tax regulations, and related complex taxation problems and issues.

Department of Business Administration

Dr. Calhoun, *Chairperson*

PROFESSORS

Angelos C. Ballas, Ph.D., *New School for Social Research*

Hung M. Chu, Ph.D., *Louisiana State University*

Andrew W. Green, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

S. Reed Calhoun, Ed.D., *University of Pittsburgh*

John R. Morgan, Ph.D., *Temple University*

ASSISTANT PROFESSORS

Oguz N. Baburoglu, Post-Grad. Diplomate, *University of Lancaster (U.K.)*

James A. Talaga, M.B.A., *Temple University*

M. Darwood Taylor, M.B.A., *Stanford University*

The Department of Business Administration along with the Departments of Accounting and Economics, participates in a program leading to the Master of Business Administration.

COURSE DESCRIPTIONS

LAW

Symbol: BLA

501 Legal Environment of Business (3) An in-depth examination of constraints and opportunities contained in the legal environment surrounding business organizations. Primary attention will be given to an intensive exploration of the law as it affects business contracts, sales, commercial paper, and the formation and operation of a business entity from the perspective of the manager. This course is designed to meet the professional needs of managers who have minimal exposure to the law and to enhance their knowledge of the legal ramifications of business operations.

MANAGEMENT

Symbol: MGT

500 Principles of Management (3) For the student without previous academic background in management, this course provides the conceptual foundation in management theory, principles, and practices for the more advanced courses required for the MBA degree. Successful completion of this course will fulfill the foundation requirement "Principles of Management" for acceptance into candidacy for the MBA degree; it is not one of the core courses in that program.

501 Management and Organization Theory (3) An examination of management functions and managerial process from a systems perspective.

This course traces the evolution and development of management and organization principles and theories with emphasis on the development of a framework for analysis of managerial problems and opportunities in both private and public sectors. The relationship between the individual and the organization and topics such as leadership, communications, motivation, and decision-making will be explored. Successful mastery of topics covered in a traditional principles of management course will be assumed.

502 Business Communications (3) The theory and practice of effective personal and organizational communications; development of managerial skills in verbal and written communications for a variety of media and forums; and practical experience in the delivery of management-oriented oral presentations and written papers. Particular attention will be paid to identifying and overcoming barriers to effective communication and insight.

503 Business Policy and Strategy (3) An in-depth examination of the processes by which organizational policy is conceived, formulated, executed, and changed. Specific topics include the strategic planning, environmental considerations, strategic decision-making, and social responsibility. Comprehensive policy-oriented cases from a variety of organizational contexts will be utilized. Completion of or simultaneous registration in other MBA core courses is expected.

504 Human Resources Management (3) The managerial implications of the human resources management and personnel administration func-

tions. Topics include forecasting and planning of staffing requirements, recruitment, selection, allocation, evaluation, and development of the human resources of an organization. Lectures, class discussions, and case materials will be utilized.

505 Production and Operations Management (3) Effective formulation and solution of problems in the acquisition of productive resources by the firm, their configuration into a productive system, and their utilization in producing goods and services. The perspective of this course is on operational rather than on strategic aspects using quantitative techniques in the areas of demand forecasting, production and capacity planning, transportation facilities layout and job design, inventory control, quality control, waiting line problems, and scheduling. Mastery of all foundation areas will be required prior to admission to this course.

506 Business and Society (3) The context and environment in which business organizations operate with specific attention to the social, ethical, political, and legal dimensions of an organization's external environment. Value assumptions, means-ends relationships, and policy ramifications of the constraints and opportunities inherent in the environment will be examined in depth. A managerial perspective will be developed to build a framework for macro-level trade-offs among and between competing economic, social, ethical, political, and legal forces and goals.

507 International Business (3) Examination of the problems of management, marketing, and

finance when developing and engaging in international business. Attention will be given to the formulation of alternative strategies for developing international business enterprises, the impact and consequences of implementing various alternative strategies for traditional business functions, problems of the multi-national firm, and the special challenges of doing business with or in underdeveloped countries. PREREQ: MGT 501, 503, 505, 506, MKT 501 and FIN 501.

508 Managerial Decision-Making in Complex Systems (3) Theories and practices governing decision-making at the individual, organizational, and inter-organizational levels; the relationships among the individual, managerial roles, and organizations as complex systems from the perspective of influence on the managerial decision-making process; analysis of the role of conflict and ambiguity; and the relative impact of quantitative versus qualitative inputs to the decision process.

509 Organizational Development (3) Inter-personal relations, intra- and inter-group relations, and the leadership role and function in the management of organizational development, change, conflict, and productivity. Primary focus will be on organizational development as an intervention strategy aimed at changing and improving organizational climate and performance. Organizations will be viewed as sociotechnical systems interacting with both internal and environmental forces.

510 Special Topics in Management (3) A seminar providing exposure to current literature and discourse on selected issues in management. Includes an individual research project treating a complex management issue from an interdisciplinary policy level perspective. Parallel seminar discussions with peers, the instructor, and with outside experts will provide a sounding board for hypotheses formulation and testing. Extensive exposure to professional journals will be required in order to enhance familiarity with contemporary advances in theory and practice.

511 Small Business Entrepreneurship (3) An interdisciplinary course on conserving, starting, and managing a small business. Topics include the role of entrepreneurship in our economy and society, identifying and exploring opportunities, feasibility studies, legal structure, raising venture capital, and organization structure. Case studies and outside speakers will be utilized extensively.

512 Management of Small Business Enterprises (3) The operation of an on-going small business enterprise. Topics include forecasting, budgeting, inventory control, pricing, promotion, and record-keeping. The roots of failure and success of small business enterprises will be examined. Selected guest speakers will share their views and experiences with students on pertinent topics. Cases and outside readings will be utilized to broaden the students' exposure to small business management issues.

513 Field Studies in Small Business Management (3) This course provides students with the opportunity to work on a consulting project for a small business firm. Teams of two to four students are assigned to each small business client requesting management counseling. Depending on expertise and past experience, the teams will work on interdisciplinary projects involving marketing research, budgeting, record keeping system, pricing and promotion. This course is sponsored by the West Chester University Small Business Institute.

MARKETING

Symbol: MKT

500 Principles of Marketing (3) An introduction to marketing. Selection of target markets, developing marketing mixes, decision making, planning, implementation and monitoring of marketing programs.

501 Marketing Management (3) An analytical approach to the study of marketing focusing on the total environment in which marketing decisions are made. Emphasis is on planning the marketing effort and integrating it into the total operation of an organization, i.e., managing the marketing function. Familiarity with topics covered in a traditional principles of marketing course will be assumed.

Economics

Dr. Mohan, *Chairperson*

PROFESSOR

Patrick J. M. Sylvester, Ph.D., *Bryn Mawr College*

ASSOCIATE PROFESSORS

Roger E. Bove, Ph.D., *Harvard University*

Philip DeMoss, Ph.D., *Kansas State University*

Dan Mohan, Ph.D., *Rutgers University*

Tahany Naggar, Ph.D., *University of Oklahoma*

ASSISTANT PROFESSOR

Kevin Dunleavy, Ph.D., *Duke University*

The Department of Economics, in cooperation with the Departments of Accounting and Business Administration, offers a program leading to the Master of Business Administration. The Department of Economics also participates in the Master of Science in Administration Program with a concentration in economics/finance. (See Administration.)

COURSE DESCRIPTIONS

ECONOMICS

Symbol: ECO

501 Fundamentals of Economics (3) An introduction to the economic way of thinking, consumer behavior and business decision making, market structure and antitrust policy, energy and the environment, national income analysis, monetary and fiscal policy, economic growth, and international trade. This course is the equivalent of a two-semester sequence at the undergraduate level.

502 Fundamentals of Statistics for Business Economics (3) Frequency distributions, random variables, probability theory and models, estima-

tion theory, hypothesis testing, analysis of variance, regression and time-series analysis. This course is the equivalent of a two semester sequence at the undergraduate level.

503 Economic Role of Women (3) Statistical information pertaining to one of the most important changes in American economy in this century is the increase in the number of working women. Job related aspects such as the historical pattern, labor force participation, education, earnings, labor supply, and sex discrimination will be examined. PREREQ: Instructor's approval.

510 Applied Econometrics (3) Analysis of multivariate models, determination of trends, oscillation, and periodic movements. Topics include

remedies for auto-correlation and multi-collinearity; dummy variables; distributed lags, forecasting and simulation; and alternative estimation techniques such as two-stage least squares, three-stage least squares, and maximum likelihood estimators.

525 Contemporary Monetary Theory & Financial Institutions (3) This course is designed to enhance students' capability to analyze the inter-relationships between aggregate economic activity, financial markets and central banking instruments, objectives, and policy. Selected topics are in the areas of demand for financial assets.

530 Economics and Public Policy (3) The principles and methods of economic analysis are applied to an evaluation of the American economic

system. Inflation, recession, and economic growth; problems of public finance and taxation; public policy regarding the concentration of economic power.

547 Managerial Economics (3) Development and application of a set of advanced micro-macro economic concepts to serve both as a source of theoretical structure and unification of other business sciences. Emphasis will be given to topics such as risk analysis, linear programming, and capital budgeting.

FINANCE Symbol: FIN

501 Financial Management (3) Theory and practice of managerial finance, with emphasis on analysis and understanding of the financial consequences of managerial decisions. Topics include financial statements, capital budgeting, working capital, and special contemporary concerns such as small business finance.

544 Investment Analysis — Portfolio Management (3) Introduction to investments, including examination of why and how individuals invest. This course provides an overview of the process by which an individual seeks out and synthesizes information about investment opportunities for the purpose of making decisions to add to, maintain, or delete assets from an investment portfolio. Special attention is directed to the risk and return of assets.

Chemistry

Dr. Goudy, *Chairperson*
Dr. Fenton and Dr. Moran, *Coordinators of Graduate Studies*

PROFESSORS

Marc L. Durand, Ph.D., *University of New Hampshire*
John Mangravite, Ph.D., *University of New Hampshire*
Philip B. Rudnick, Ph.D., *Rutgers—The State University*
William Torop, Ed.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

John Fenton, Ph.D., *University of Minnesota*
Andrew Goudy, Ph.D., *University of Pittsburgh*
Virgil E. Magnuson, Ph.D., *University of New Hampshire*
Arthur Severn, Ph.D., *Lehigh University*
Carlos Vila, Ph.D., *Massachusetts Institute of Technology*
Ardis M. Williams, A.M., *Vassar College*
Philip Witonsky, Ph.D., *University of Minnesota*

ASSISTANT PROFESSORS

Michael Moran, Ph.D., *University of Pennsylvania*
Helen G. Reid, Ph.D., *University of New Orleans*
Joel Ressler, Ph.D., *Lehigh University*

The Department of Chemistry offers a program leading to the Master of Science in chemistry and a Master of Science in clinical chemistry. It also cooperates with the Departments of Geology and Astronomy and Physics in offering a program leading to the Master of Arts in physical science. See Physical Science Program.

MASTER OF SCIENCE IN CHEMISTRY

Admission Requirements

In addition to meeting the general requirements for a degree program at West Chester, applicants must present an undergraduate background including mathematics through calculus, one semester of analytical chemistry, and full-year courses in organic chemistry and physical chemistry.

Degree Requirements

1. Before admission to degree candidacy, each student is required to pass three qualifying examinations in the five major areas of

chemistry (inorganic, analytical, physical, organic, and biochemistry). Up to four areas may be selected by the student. If necessary, the examinations in each area may be retaken once. The student may be required to enroll in appropriate undergraduate courses for no credit in order to prepare for a re-examination. These examinations must be passed before admission to degree candidacy, i.e., prior to the attainment of 15 graduate credits.

2. At the discretion of the department chairperson, Graduate Record Examination scores may be required for purposes of evaluation and guidance.
3. A reading proficiency is required in any one of the following modern languages: German, French, or Russian. The reading test is administered by the Department of Foreign Languages. In place of the modern-language proficiency, a demonstrated proficiency in a computer language (FORTRAN, for example) may be substituted.*
4. The candidate must perform successfully on an oral examination which is required for all options. The oral examination will include general chemistry knowledge but will place emphasis on the area represented by independent study or the research report. The members of the examination committee include the research supervisor, the departmental guidance coordinator, and two other professors.

Program for the Master of Science in Chemistry

30, 33, or 36 Semester Hours

The M.S. in chemistry program consists of a required core of 15 semester hours and a chemistry elective area for which there are three options. All students must complete the core, composed of CHE 511—531—540 or 543 and any two of the topics courses (CHE 515—525—533—544—551—575). One semester of CHE 591 must be taken.

Option A (30 semester hours)

This is the thesis program. Beyond the core the candidate takes Independent Study Thesis (CHE 610) and 9 semester hours of electives.

Option B (33 semester hours)

Beyond the core this option requires Independent Study in (CHE 610) for 6 credits and 12 semester hours of electives.

Option C (36 semester hours)

Under this plan the student completes core requirements and an elective area of 21 semester hours which must include 3 credits in Independent Study (CHE 610).

Under all options the elective area is developed under advisement from chemistry offerings but may include 3 semester hours from another science area or from mathematical sciences.* Until admitted to degree candidacy, students may not undertake independent study.

* A computer science course taken to satisfy the foreign language requirements will not be counted as an elective toward the degree.

MASTER OF SCIENCE IN CLINICAL CHEMISTRY

Admission Requirements

An applicant must meet the general requirements for a degree program at West Chester and must hold a bachelor's degree in chemistry, medical technology, or a closely related field.

Course prerequisites for admission include one semester each of analytical chemistry, biochemistry, physics, clinical chemistry, clinical chemistry laboratory, and physical chemistry. Two semesters of organic chemistry and mathematics through calculus are also required. Several of the above courses may be waived if the applicant has graduated from a four year medical technology program approved by the National Accrediting Agency in the Clinical Laboratory Sciences (NAACLS). Students who do not meet program prerequisites may take required courses upon enrollment. Graduate Record Examination scores may be required prior to acceptance.

Degree Requirements

1. Before admission to candidacy each student must pass a comprehensive examination covering the areas of biochemistry, clinical chemistry, and analytical chemistry. This examination is usually administered after one-half of the student's coursework is completed. If necessary, this examination may be retaken once.
2. The candidate must perform successfully on an oral examination which is required in either program option. The oral examination will include general chemistry knowledge but will place emphasis on the area represented by independent study or the research report. The members of the examination committee include the research supervisor, the departmental graduate coordinator, and two other professors.

Program for the Master of Science in Clinical Chemistry

The program consists of a required core of 20 semester hours. Additional credits needed for the degree may be pursued under three options.

Core courses: CHE 524, 548, 555, 579, 582, 583, ADM 505 (CHE 550, Clinical Chemistry Internship is also required of students who lack previous clinical laboratory training).

Option A

Core plus CHE 610 (Advanced Independent Study) plus 13 semester hours of electives from chemistry, biology, physics, mathe-

matics, computer science, or administration. Total semester hours equal 36.

Option B

Core plus 4 semester hours of electives plus 6 credits of research/thesis (CHE 610). Total semester hours equal 30.

Option C — Master of Science in Clinical Chemistry and Certificate in Administration

Chemistry core plus 3 semester hours of CHE 610 plus core from the graduate administration program. Total semester hours equal 38. The student minors in administration and receives the M.S. degree in addition to the Certificate in Administration.

MASTER OF EDUCATION IN CHEMISTRY

Admission Requirements

In addition to meeting the general requirements for admission to a degree program at West Chester, applicants must present an undergraduate background including mathematics through calculus and 24 semester hours of undergraduate chemistry.

At the discretion of the department chairman, Graduate Record Examination scores may be required for evaluation and guidance.

Degree Requirements

1. If academic or professional performance is less than satisfactory during the pre-candidacy period, the student may be required to enroll in an appropriate undergraduate course.
2. Successful performance on a comprehensive oral examination given upon completion of the program.
3. Successful completion of the program outlined below.

Program for the Master of Education in Chemistry

34 Semester Hours

The M.Ed. in chemistry program consists of professional education requirements and area concentration requirements as outlined below.

Professional Education Requirements

(See page 37) 10-12 s.h.

Area of Concentration 20-22 s.h.

A. Required 14 s.h.

SCE 500 Modern Trends in Science Education 2 s.h.

CHE 511 Advanced Inorganic Chemistry I 3 s.h.

CHE 524 Analytical Chemistry II 3 s.h.

CHE 531 Organic Reaction Mechanisms 3 s.h.

CHE 540 Chemical Thermodynamics 3 s.h.

(CHE 543 may be taken in place of CHE 540)

B. Electives, under advisement 6-8 s.h.

Electives (Professional or Academic) 0-4 s.h.

COURSE DESCRIPTIONS CHEMISTRY

Symbol: CHE unless otherwise shown. CRL indicates laboratory

500 Fundamentals of Radioisotope Techniques

(3) Biological, chemical, environmental, and physical effects of nuclear radiation. Radiation detection, instrumentation, and radiotracer methodology. PREREQ: 1 year of college chemistry and 1 year of college physics.

503 Chemistry of the Environment (3) The chemistry of the atmosphere, hydrosphere, and biosphere. Man's impact on these areas. Not for M.S. in chemistry.

505 Fundamental Topics in Chemistry (2-6)

Basic level elective courses in chemistry for professional growth. Not for M.S. in chemistry. May be repeated. PREREQ: General chemistry.

508 Industrial Pollution (3) Applications of elementary chemical engineering to the industrial complexities of the environmental processes. Emphasis on unit operations and unit processes applicable to pollution control and abatement.

511 Advanced Inorganic Chemistry I (3) Structure and properties of the elements and their compounds from a theoretical point of view; horizontal, vertical, and diagonal relationships in the periodic table.

515 Topics in Inorganic Chemistry (3) Topics of current interest in inorganic chemistry. Topic to be announced prior to registration.

516 Inorganic Preparations (3) A laboratory course in advanced techniques for the synthesis of inorganic compounds.

517 History of Chemistry (1) The history of chemistry and its predecessors from earliest time to present day.

518 Literature of Chemistry (1) Instruction in the use of a modern chemical library, reference and data acquisition, synthetic procedures and computer data bases. PREREQ: CHE 231.

519 Ethics and Human Values in Science (1) A one semester course for science majors to acquaint students with ethical problems in their professional careers.

524 Analytical Chemistry II (3) Basic principles of applied instrumental analysis. Special emphasis on the use of spectrophotometric, elec-

troanalytical and chromatographic instrumentation. Lab: CRL 524. PREREQ: One semester of analytical chemistry.

CRL 424 Analytical Chemistry II Laboratory (2) Practical experience in the choice and application of instrumental methods to chemical systems. CONCURRENT OR PREREQ: CHE 524

525 Topics in Analytical Chemistry (3) In-depth examination of current topics in instrumental or wet chemical analysis. Special emphasis on state-of-the-art development and applications.

CRL 527 Electron Microscopy (3) See ESL 527.

CRL 529 Electron Microscopy II (3) See ESL 529.

531 Organic Reaction Mechanisms (3) Theoretical treatment of selected organic reactions. Emphasis on bonding theory, structural relationship, equilibria, and free-energy relationships.

532 Synthetic Organic Chemistry (3) Topics of current interest in synthetic organic chemistry. Topic announced prior to registration.

533 Topics in Organic Chemistry (3) Topics of current interest in organic chemistry. Topic announced prior to registration.

535 Qualitative Organic Analysis (5) Identification of pure organic compounds and mixtures of organic compounds using classical and modern instrumental techniques. Laboratory included.

536 Polymer Chemistry (3) Polymerization kinetics, rheology of polymer melts, crystallization parameters, and monomer reactivity in copolymerization.

540 Chemical Thermodynamics (3) Laws and functions of thermodynamics and their applications: introduction to statistical thermodynamics.

543 Quantum Chemistry (3) Basic quantum chemistry, including the hydrogen atom problem, chemical bonding, spectroscopic concepts, and group theory.

544 Topics in Physical Chemistry (3) Topics of current interest in physical chemistry. Topic announced prior to registration.

548 Clinical Biochemistry (3) A one semester course on the biochemical basis of disease. Case histories are discussed with emphasis on the clinical interpretation of laboratory data. PREREQ: CHE 581

550 Internship in Chemistry (3-6) A full or part-time work study appointment in a hospital, commercial, governmental or industrial laboratory supervised jointly by an on-site supervisor and chemistry department faculty member. PREREQ: Permission of the department internship committee.

551 Chemistry of Coordination Compounds (3) Principles of complex formation; application of the crystal theory, various complexing agents, and chemical implications of coordinated compounds. PREREQ: CHE 511

555 Quantitative Clinical Methods (3) A source on the mathematical aspects of clinical laboratory science. Statistics and laboratory uses for computers are stressed. PREREQ: CHE 581.

563 Electrochemistry (3) Principles of electrochemical systems and galvanic cells; electrolytic applications in instrumentation and research. PREREQ: CHE 511

571 Fundamentals of Biochemistry (3) Structure and chemistry of proteins and nucleic acids; molecular biology, physio-chemical methods for biomacromolecules, enzymes, and the molecular basis for some physiological phenomena. Lab: CRL 571. PREREQ: Physical Chemistry

CRL 571 Experimental Biochemistry (2) Laboratory exercises in the fundamentals of biochemistry. CONCURRENT OR PREREQ: CHE 571.

575 Topics in Biochemistry (3) Topics of current interest in biochemistry. Topic announced prior to registration.

579 Chemical Toxicology (3) A one-semester course in the basic principles of toxicological analysis. Special emphasis will be placed on documentation, sampling, and verification of laboratory materials and results. The environmental and physiological aspects of chemical toxicity will be explored.

CRL 579 Chemical Toxicology Laboratory (2) A one-semester course in the basic principles of toxicological analysis. CONCURRENT OR PREREQ: CHE 579

580 Introduction to Chemical Research (2-6) An introduction to the methodology and techniques involved in carrying out independent chemical research.

581 Clinical Chemistry (3) Analysis of biological fluids. Clinical significance of enzyme, electrolyte, protein, and carbohydrate analysis. Requires permission of instructor or undergraduate preparation in organic chemistry and quantitative analysis. PREREQ: OR CONCURRENT: CHE 571 (Fundamentals of Biochemistry).

CRL 581 Clinical Chemistry Laboratory (2) Lab for CHE 581. Practical experience in analysis of biological fluids for diagnostic parameters. Nature of biological sampling, sample preservation, methodology, statistics, quality control. PREREQ: CRL 231 and CRL 321 or equivalents

582 Advanced Clinical Chemistry (3) A one semester course with emphasis on recent advances in testing modalities, instrumentation, and methodologies in clinical chemistry. PREREQ: CHE 571, 581.

583 Clinical Chemistry Seminar (2) A course emphasizing the recent literature in clinical chemistry. Student lecture presentations and round table discussions are used. PREREQ: CHE 581

585 Theory and Practice of Spectrophotometry (4) Lecture and laboratory course with emphasis on research uses of spectrophotometry. Theoretical background and laboratory techniques for understanding and carrying out advanced spectroscopic studies.

591 Seminar (2) Topics of current interest in chemistry.

610 Advanced Independent Study Thesis Research (3-6)

SCC 470 Science and Human Values (3) Not for M.S. in chemistry

Any of the following dual level courses (but not more than 6 semester hours of credit) may be taken for graduate credit toward the degree:

504 Foundation of Nutrition (3) Not for M.S. See CHE 404.

CHE 524 Analytical Chemistry II (3)

CRL 524 Analytical Chemistry II Laboratory (2) CHE) See CRL 424

CRL 571 Fundamentals of Biochemistry (3)

CRL 571 Experimental Biochemistry (Lab) (2)

Childhood Studies and Reading

Dr. Hasselquist, *Chairperson*

Dr. Christensen, *Graduate Coordinator*

PROFESSORS

Joseph C. Hall, Ed.D., *Temple University*

E. Riley Holman, Ed.D., *Brigham Young University*

Mary A. Keetz, Ph.D., *University of Pennsylvania*

George W. Maxim, Ph.D., *Pennsylvania State University*

Erminio J. Peta, Ed.D., *Lehigh University*

Carol A. Radich, Ph.D., *University of Maryland*

Carlos R. Ziegler, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

Nona E. Chern, Ed.D., *Temple University*

K. Eleanor Christensen, Ph.D., *University of Delaware*

Edward H. Gibson, Ed.D., *Nova University*

Patricia E. Grasty-Gaines, Ed.D., *Temple University*

James E. Habecker, Ed.D., *University of Pennsylvania*

Joan Hasselquist, Ed.D., *Temple University*

Ruth B. Petkofsky, Ed.D., *Temple University*

Robert J. Szabo, Ed.D., *Lehigh University*

The Department of Childhood Studies and Reading offers graduate programs leading to certification in elementary education and certification as a reading specialist; a Master of Education in elementary education; a Master of Education in Reading; and a Certificate of Advanced Graduate Study. Courses are available to teachers desiring permanent Pennsylvania elementary certification.

Elementary Education

Through programs in elementary education, the department offers the Master of Education degree in elementary education, as well as non-degree programs for teachers working for professional growth and/or credit certification.

ADMISSION TO THE DEGREE PROGRAM

1. The Miller Analogies Test is required. Scores must be on file within the student's first semester.
2. Within the pre-candidacy period (the first 12-15 semester hours) the applicant must:
 - a. Complete EDF 501 and two EDE courses.
 - b. Maintain an average of 2.75 overall and 3.00 in elementary education.

Please refer also to "Degree Candidacy and Degree Requirements" under Academic Information. Students who fail to qualify as degree candidates are classified as non-degree students, but may reapply for degree candidacy.

DEGREE PROGRAM REQUIREMENTS

1. Satisfactory completion of the curriculum as given below. Both the selection and the sequence of courses should be determined in consultation with the appointed advisor.
2. An overall grade point average of at least 2.75 and a grade point average of at least 3.00 in elementary education. NOTE: All courses specific to elementary education are included in computing the grade point average in elementary education. Examples of such courses are ENG 592 and MTE 554.
3. Satisfactory performance on the comprehensive examination.
4. It is advised that the student have elementary education certification before completion of the master degree; however, certification requirements may be waived on an individual basis under advisement.

THE COMPREHENSIVE EXAMINATION

In order to become eligible for the examination, the student must:

1. Be a degree candidate.
2. Complete at least 28 semester hours, including all required courses, by the end of the semester preceding the examination.
3. Maintain an average of 2.75 overall and 3.00 in elementary education.

The examination is given on the first Saturday in February and the second Saturday in July, unless otherwise announced by the department.

Applications for admission to the comprehensive examination are available from the department and must be filed by December 1 for the February examination and May 1 for the July examination. A candidate who fails the comprehensive examination is permitted to take one re-examination within a two-year period. Upon a second failure, the candidate's future status will be determined by the departmental graduate committee following a comprehensive review of his/her graduate record.

MASTER OF EDUCATION IN ELEMENTARY EDUCATION

This may be either a non-thesis program requiring 34 semester hours or a thesis program requiring 30 semester hours.

In either option the candidate must meet a professional education requirement including EDF 501, EDF 510, and EDP 550. Also required in either option is an elementary education area consisting of EDE 548, 549, 553, and an elective in reading or elementary education.

Within the first session of enrollment the student confers with the assigned advisor to determine an appropriate and desirable area of concentration. The remainder of the program will be developed within the selected concentration. The choice of concentrations may be made from (A) areas offered by the Department of Childhood Studies and Reading or (B) areas offered by other departments. These are:

(A) Elementary Education Concentration Areas

Creative Teaching-Learning	Language Arts
Early Childhood Education	Middle School
Elementary Education (General)	Open Education
Gifted and Talented	Reading
Human Development	Social Studies

(B) Concentration Areas in Other Departments

Bilingual Education	Science
Children's Literature	Special Education
Mathematics	

MASTER OF EDUCATION IN ELEMENTARY EDUCATION

Non-Thesis Program (34 s.h.)

I. Professional Education	9 s.h.
EDF 501 Methods and Materials of Research and Study for Elementary Education	3
EDF 510 Educational Foundations	3
EDP 550 Advanced Educational Psychology	3
II. Elementary Education	12 s.h.
EDE 548 Curriculum Theory and Trends in Elementary Education	3
EDE 549 Theory and Trends in the Language Arts	3
EDE 553 Child Development and Behavior II	3
Elective in Reading and/or Elementary Education	3
III. Area of Concentration	13 s.h.

The 21 credit hours above are required of all degree candidates. The remaining 13 credits are to be concentrated in one of the following areas, to be selected under advisement during the first session of enrollment:

Courses offered within the department. Advisement by assigned advisor.

Creative Teaching-Learning
Early Childhood Education
Elementary Education (General)
Gifted and Talented
Human Development
Language Arts
Reading

Courses offered in other departments. Advisement for area of concentration by selected faculty in respective department.

Social Studies
Bilingual Education
Children's Literature
Mathematics
Science
Special Education

Thesis Program (30 semester hours)

Students who wish to pursue the thesis program must consult with the department chairperson or his or her designee not later than the second session of enrollment.

Reading

Through its graduate reading program, the School of Education offers (1) the Master of Education degree with a major in reading, or (2) the Reading Specialist Certification. Students who complete either program are recommended for Pennsylvania certification as reading specialists. These programs prepare candidates to serve in special reading positions and as classroom teachers of reading in elementary or secondary schools.

ADMISSION TO THE DEGREE PROGRAM

1. The student must possess an Instructional I Certificate.
2. The Graduate Record Examination Aptitude Test and/or the Miller Analogies Test is required. Scores must be on file within the student's first semester session.
3. Courses required within the pre-candidacy period are EDR 510, 514 or 515, 516, EDF 500 and one additional course from the prescribed program.
4. An overall average of 2.75 and a minimum of 3.00 in reading courses must be maintained during the pre-candidacy period.

DEGREE PROGRAM REQUIREMENTS

In addition to meeting degree requirements of the University the candidate must:

1. Successfully complete the reading curriculum and any additional courses which may be required by the reading faculty.
2. Achieve an overall average of at least 2.75 and a minimum of 3.00 in reading courses.
3. Perform satisfactorily on the comprehensive examination in reading. Responsibility for meeting all requirements at the proper time rests with the student.

THE COMPREHENSIVE EXAMINATION

The student is eligible for the comprehensive examination upon completion of all prescribed work and the recommendation of the advisor. The examination is given the first Saturday in February and the second Saturday in July. Application for the examination must be made in writing to the graduate coordinator for the February examination by December 1, and by May 1 for the July examination.

Candidates who fail the comprehensive examination are permitted one re-examination within a two-year period. Upon a second failure, candidates are dropped from the degree program.

MASTER OF EDUCATION IN READING

36 Semester Hours

Professional Education Requirements 6 s.h.
EDF 500 and EDF 510

Area of Concentration Requirements 21 s.h.
EDR 510, 514 or 515, 516, 517, 521, 522, 541

Area of Concentration Electives 3 s.h.
Selected, under advisement, from EDR 523, 525, 526, 540, 542, 590

Related Study Requirements* 6 s.h.

At least one course from Group A and one from Group B must be selected under advisement.

GROUP A (Language Arts): EDE 522, 543, 548, 549, ENG 592, 593

GROUP B (Related Areas): EDA 571, EDC 545, EDE 551, EDE 553, EDE 554, EDE 555

READING SPECIALIST CERTIFICATION

30 Semester Hours

Requirements for the Certification Program:

1. The student must possess an Instructional I Certificate.
2. Courses required within the first 15 hours are EDR 510, 514 or 515, 516 and 517.
3. An overall average of 2.75 and a minimum of 2.88 in reading courses must be maintained.
4. In order to obtain the certificate the student must successfully complete the program shown above under Master of Education in Reading except that the student is not required to take the two courses in professional education.
5. The student must perform successfully on the competency examination.

*Courses other than those listed may be substituted for this area provided the student first obtains his/her advisor's approval for the course. If the student fails to obtain the advisor's approval *prior* to registration for the course, then it may not be used to meet any requirements in this area.

Certificate of Advanced Graduate Study (CAGS)

The Certificate of Advanced Graduate Study (CAGS) is designed for students who already possess a master's degree and who wish to expand their knowledge in a given area or to broaden it to include other areas. Such students normally do not wish to undertake a doctoral program but, at the same time, prefer the guidance and structure offered by a program such as the CAGS.

ADMISSION REQUIREMENTS

A student who wishes to pursue the CAGS must:

1. Possess a master's degree from a reputable institution.
2. Have attained a minimum GPA of 3.00 in a master's degree program.
3. Present three (3) professional letters of recommendation.

4. Score acceptably on the Graduate Record Examination or the Miller Analogies Test.

Acceptance for study toward the CAGS will be determined by the faculty of the Department of Childhood Studies and Reading. However, prior to formal admission to the program, the student is required to develop a proposed plan of study with the supervising committee (major advisor and one additional member) that has been appointed by the Department Chairperson or his/her designee.

PROGRAM

A minimum of 30 semester hours earned beyond the master's degree is required. Each student accepted into the program will pursue a plan of study to meet his/her needs. This plan will be developed with his/her major advisor and have the approval of the student's supervising committee. Previous course work taken will be considered in the development of the student's program. The suggested

program will be presented to the departmental graduate committee for approval. Course work may be arranged as follows:

1. Area of Specialization 18-24 credit hours
(Examples: Early Childhood Education, Elementary Education—General, Language Arts, Mathematics, Reading, Science, Social Studies, Gifted Education). Programs will be individually tailored for each student by an advisor.
2. Course Work in Complementary Areas 0-6 credit hours
3. Seminar in Research 3 credit hours
4. Research Report 3 credit hours

TRANSFER CREDITS

A maximum of six hours of approved transfer credit earned after the master's degree may be applied to the proposed program if the

courses complement the area of specialization and if taken within the last three years.

CERTIFICATE OF APPROVAL

Successful completion of the program requires that the student has:

1. Achieved a minimum GPA of 3.25 in all course work in the area of specialization and a minimum GPA of 3.0 in all course work taken outside the School of Education.
2. Successfully passed an oral examination in the area of specialization as well as the research report. All requirements including the research report must be completed before the student will be allowed to take the oral examination.
3. Met all program requirements.
4. Completed the program within six years following the date of the first enrollment.

COURSE DESCRIPTIONS

EARLY CHILDHOOD & ELEMENTARY EDUCATION

Symbol: EDE

502 Introduction to Early Childhood Education (3) A basic course in early childhood education. Emphasis is upon the historical and theoretical bases influencing education of young children.

503 Contemporary Influences in Early Childhood Education (3) Current factors that affect the educational needs of young children and classroom practices reflecting these influences.

504 Early Childhood Programs (3) Model programs in early childhood education, focusing upon curriculum design and implementation in the pre-school and primary years.

505 Seminar in Early Childhood Education (3) Selected problems in early childhood education. PREREQ: Permission of instructor.

522 Teaching the Communication Skills (3) Strategies for teaching the language arts. Methods, materials, and resources for organizing creative programs in school settings.

530 Social Studies in Elementary Education (3) Interdisciplinary and multi-cultural strategies for developing concepts, skills, and values in the social studies program.

532 Curriculum and Research in Social Studies (3) Recent research in social studies with emphasis on the theoretical bases for making curriculum decisions. PREREQ: Permission of instructor.

533 Seminar in Social Studies Education (3) Selected problems in social studies education. PREREQ: Permission of instructor.

543 Creative Expression in the Elementary School (3) Theories and techniques to promote creative thinking and enhance children's creative potential in all areas of the school curriculum.

544 Open Education in the Elementary School (3) Emphasis is placed on how learning occurs in open education. Planning environments and programs for children.

548 Curriculum Theory and Trends in Elementary Education (3) Theoretical frameworks of elementary school curricula; curriculum development and change. To be taken after 15 hours of work.

549 Theory and Trends in the Language Arts (3) Analysis and evaluation of language arts programs including reading in the modern elementary school. PREREQ: EDE 548.

grams including reading in the modern elementary school. PREREQ: EDE 548.

551 Child Development and Behavior I (3) Social, intellectual, emotional, physical, and moral aspects of child development and behavior. Emphasis on personal development of the teacher as a prerequisite to understanding children in the elementary school.

553 Child Development and Behavior II (3) Review of principles of growth and development. Theories of personality development, clues to identifying children with problems; therapies applicable to elementary school children. Case study required. PREREQ: A recent course in child development.

554 The Self Concept (3) Self concept theory and research; implications for development, learning, and behavior; specific application to school settings. PREREQ: Recent course in human development or the equivalent.

555 Self Development and Interpersonal Skills (3) Self development, interpersonal, and group communication skills. Focus on helping relationships in educational settings. PREREQ: Recent course in human development or the equivalent.

556 Seminar in Human Development (3) Critical issues in human development. PREREQ: Permission of instructor.

560 Meeting Individual Needs of Children (3) Discovering each child's needs; providing for individualized learning; identifying problems and their solutions. PREREQ: Recent course work in elementary education and child development.

561 Guidance in the Elementary School (3) Developmental guidance—philosophy, programs, personnel. Guidance role and responsibilities of the teacher in the classroom. PREREQ: Recent course work in elementary education and child development.

565 Effective Classroom Management (3) Dynamics of interpersonal relations in planning and facilitating classroom instruction.

570 Supervision in the Elementary School (3) Concepts and practices in supervision of teachers, student teachers, and aides. PREREQ: Course work in elementary education and child development.

580-589 Workshops in Elementary Education (1-6) Additional course numbers will be assigned as new areas of study are announced. Credits vary.

The series presently includes:

580 Workshop in Elementary Education

581 Workshop in Open Education

582 Workshop in Social Studies

583 Workshop in Creativity

584 Workshop in Early Childhood Education

585 Workshop in Language Arts

588 Workshop in Gifted and Talented

589 Workshop in Humanizing Teaching and Learning

590 Independent Study (1-6) Enrollment by permission only; number of credits determined by instructor.

600 Research Report (1-2)

610 Thesis (4-6)

695 Seminar in Elementary Education (3) Selected topics in elementary education. To be taken during semester preceding the taking of the comprehensive examination in elementary education.

GIFTED AND TALENTED

Symbol: EDG

542 Creative Thinking: Gifted and Talented

(3) A study of the basic theoretical approaches for encouraging the creative potential of gifted and talented learners.

546 Gifted and Talented: Teaching Strategies and Materials (3) Program models, resources, and materials designed to meet the needs of gifted and talented children and youth.

READING

Symbol: EDR

510 Foundations of Reading Instruction: K-12 (3) Psychology and pedagogy of reading instruction. The nature of the reading process; the nature of the learner; skill development; instructional strategies. Offered in fall, spring, and summer.

514 Reading in the Content Areas: Elementary (3) The specialized reading skills, reading problems, teaching techniques, and reading activities in content subjects at the elementary level. PREREQ: 510 or permission of instructor. Offered in fall.

515 Reading in the Content Areas: Secondary (3) The specialized reading skills, reading problems, teaching techniques, and reading activities in content subjects at the secondary level. PREREQ: 510 or permission of instructor. Offered in spring.

516 Reading Disabilities (3) Concerned with the nature of reading disability and diagnosis and remediation of reading problems. PREREQ: 510. Offered in fall and summer.

517 Current Practices in Teaching Developmental and Corrective Reading (3) Concerned with developmental and corrective reading instruction. Attention is given to diagnostic procedures and resulting appropriate instruction. PREREQ: 516 or permission of instructor. Offered in fall and spring.

521 Reading Clinic Practicum and Seminar I (3) A laboratory course. Diagnosis of reading difficulties of elementary and secondary students with reading problems. Major attention given to diagnosing corrective cases and writing case reports. PREREQ: 514 or 515/516. Offered in fall and summer.

522 Reading Clinic Practicum and Seminar II (3) Continuation of 521. Opportunities to develop specific techniques for correcting various types of reading disability cases. PREREQ: 521. Offered in spring and summer.

523 Reading as a Language Process (3) Basic concepts from areas of phonology, morphology, syntax, semantics, sociolinguistics, dialectology, and psychology will be related to the teaching of reading in grades K-12.

525 Reading for the Disadvantaged (3) Historical, cultural, and educational contexts of current issues as they relate to language competency programs, evaluation, and reading instruction for disadvantaged learners.

526 Reading Readiness and Early Childhood Experiences (3) Concerned with children's readiness for initial reading instruction. Emphasis on instructional recommendations and implementations for a range of abilities. PREREQ: EDR 510 or permission of instructor.

540 Seminar in Reading (3) Critical examination of trends, opinions, and current research in the teaching of reading. PREREQ: 516 or permission of instructor.

541 Organization and Operation of Reading Programs: K-12 (3) Practical application of the

reading specialist's role in organizing and operating K-12 reading programs. Emphasis on the use of the total school community in meeting individual reading needs. PREREQ: 522 or permission of instructor. Offered in spring and summer.

542 Seminar in Reading Research (3) A seminar in the basic techniques and sources of research in reading. Exposure to significant research in the field. PREREQ: EDF 501 or permission of instructor.

545 Bibliotherapy (3) An introductory course dealing with the basic concepts of bibliotherapy and its use as an adjunct to other therapeutic measures. Directed reading procedures for the solution of various problems are discussed. Students develop and utilize materials and a selective annotated bibliography. PREREQ: Permission of the instructor.

590 Independent Study (1-6) Individual investigation and exploration of related reading research. Topic must be approved by the supervising instructor prior to registration.

Communicative Disorders

Mr. Eberhart, *Chairperson*

Dr. Stigora, *Coordinator of Graduate Studies*

PROFESSOR

Michael S. Weiss, Ph.D., *Purdue University*

ASSOCIATE PROFESSORS

Lester F. Augst, Ph.D., *Pennsylvania State University*

Susan Maxwell, M.A., *Ohio University*

Cleavonne S. Stratton, Ph.D., *Ohio State University*

ASSISTANT PROFESSORS

Leila B. Alson, M.A., *Ohio University*

John L. Eberhart, M.A., *Syracuse University*

Joseph A. Stigora, Ph.D., *Bowling Green University*

Elena F. Stuart, M.S., *Purdue University*

The Department of Communicative Disorders offers the Master of Arts degree in Speech Pathology. The student may choose a thesis or nonthesis program. Either program is designed to strengthen the knowledge and skill of the practicing speech clinician, to provide the foundation for further graduate study, and to afford opportunity to complete requirements toward professional certification by the American Speech-Language-Hearing Association. Attainment of the master's degree does not necessarily guarantee recommendation for certification.

MASTER OF ARTS IN SPEECH PATHOLOGY

39 Semester Hours

Admission to the Program

In addition to meeting the general requirements for admission to a degree program at West Chester, applicants must:

1. Present an undergraduate background of at least 24 semester hours in the following areas of study: speech and language development, phonetics, introduction to speech disorders, language

disorders, introduction to audiology, basic speech and hearing science, and clinical experience.

2. Present undergraduate transcripts showing at least a 3.00 average in the last 60 hours of study.
3. Demonstrate a reasonable degree of speech and language proficiency.
4. Submit Miller Analogies Test scores for purposes of evaluation and guidance.
5. Submit a log of undergraduate clinical practicum.
6. Submit 3 letters of recommendation.
7. Submit a 250-word essay describing future goals and aspirations.

Admission to Degree Candidacy

1. The applicant may apply for degree candidacy after having completed SPP 501, 502 and 508. Application must be made before the student has completed 15 semester hours of graduate work required for the degree.
2. During the pre-candidacy period, the applicant must maintain an overall average of 3.00.
3. The applicant must have demonstrated satisfactory performance in clinical practicum at West Chester University.

Requirements for the Degree

1. The candidate must meet the general university requirements for the master's degree, including completion of all required courses with an overall average of 3.00.
2. The candidate must perform satisfactorily on a comprehensive written and oral examination, which may not be taken before the student's final semester of course work. Those who fail the examination may repeat it once. The interval between the two examinations may not exceed one year.
3. The candidate must complete satisfactorily SPP 501, 502, 508, 523, 524, 526, 535, and 3 semester hours of graduate clinical practicum (SPP 551)*, plus 15 additional semester hours, chosen with advisement, which must include a graduate course in audiology and a graduate course in organic disorders.
4. The student must be in continuous enrollment.

*Although the student may elect more than 3 semester hours of clinical practicum for personal objectives, no more than 3 may be counted toward the degree.

Certification Programs

Candidates for the Master of Arts in speech pathology may be recommended for the Pennsylvania Instructional I Certificate in speech correction upon satisfactory completion of the equivalent of the department's Bachelor of Science in Education curriculum. Students who do not qualify for master's degree candidacy may complete a second bachelor's degree in order to be recommended for the Instructional I certificate. In the Department of Communicative

Disorders, "Certification Student" designates either (a) non-degree students who already hold the Instructional I certificate and who are earning the Instructional II certificate, or (b) non-degree students who meet the pre-requisites for admission to the degree program, but who already hold a master's degree or its equivalent in a related field and who wish to meet the requirements for the Certificate of Clinical Competence in Speech Language Pathology issued by the American Speech-Language-Hearing Association.

COURSE DESCRIPTIONS COMMUNICATIVE DISORDERS Symbol: SPP

500 Survey of Speech Disorders (3) Description, etiology, and management of communication disorders. Introduction to the field of speech pathology and its interrelationships with other professions. Open to non-majors with no previous coursework in speech pathology. Not open to students with credit for SPP 101 or equivalent

501 Foundations of Research in Speech Pathology (3) Introduction to the scientific process and to the interpretation and application of research in the speech sciences. A research project outline required.

502 Experimental Phonetics (3) Study of acoustic and physiological mechanisms underlying speech production and perception. Current theoretical models are reviewed and analytical instrumentation demonstrated. Students are provided with laboratory experiences to complement lecture materials.

508 Neurology of the Speech and Hearing Mechanism (3) This course provides the student with information concerning the neuroanatomical and neurophysiological mechanisms underlying the speech and hearing process.

523 Voice Disorders (3) Examination of classification, etiology, diagnosis, and therapy for functional, organic, and psychological voice disorders.

524 Fluency Disorders (3) Consideration of the nature, causes, diagnosis, and treatment of stuttering and related disorders of speech flow. Critical review of pertinent research. PREREQ: Permission of department.

526 Articulation Disorders (3) Theoretical considerations, research findings, and clinical practices concerning disordered speech sound production.

535 Language Disorders of Children (3) Linguistic and neurological aspects of behavior

relative to disorders of language in children. Review of etiology, assessment, and treatment. PREREQ: SPP 107 or equivalent.

536 Aphasia (3) Study of the behaviors associated with language disorders in adults. Emphasis on etiologies, symptoms, assessment, and rehabilitative procedures.

543 Therapy for the Hearing Impaired (3) Evaluative and therapeutic materials and methods applicable to the improvement of communication in hard-of-hearing individuals. PREREQ: SPP 346 or equivalent.

546 Aural Rehabilitation (3) Medical, prosthetic, and educational approaches to aural rehabilitation for children and adults. Not open to students with credit for SPP 346 or equivalent. PREREQ: SPP 343 or equivalent.

547 Audiometry (3) Lecture laboratory course in the measurement of hearing. Not open to students with credit for SPP 347 or equivalent. PREREQ: SPP 343 or equivalent.

550 Advanced Diagnostic and Therapeutic Methods in Speech Pathology (3) Current and advanced evaluative methods and materials applicable to the diagnosis and remediation of communication disorders.

551 Graduate Clinical Practicum (3) Supervised practice in the Speech and Hearing Clinic. Designed to increase diagnostic and therapeutic skills with children and adults who have communication problems. May be repeated. PREREQ: SPP 351 or equivalent and permission of department.

552 Affiliation Practicum (6) Supervised practice in an affiliated clinic or school. Designed to increase diagnostic and therapeutic skills with children and adults who have communication disorders. May be repeated. PREREQ: SPP 351 or SPP 551 and permission of the department.

560 Seminar in Speech Pathology (3) Selected theoretical and clinical areas of speech pathology and related disciplines. Topics vary each semester

according to research developments and student needs. PREREQ: Permission of instructor.

561 Seminar in Audiology (3) Selected areas in audiology and related disciplines. Topics vary each semester according to developments in research, and student needs. PREREQ: Permission of instructor.

562 Research Seminar (3) Development of an individual research project of the student's choice. Research design, methodology and data analysis will be emphasized. PREREQ: SPP 501. A course in statistics is recommended.

569 Equipment Workshop (3) Evaluation, selection, use, and maintenance of electronic aids for the speech and hearing clinician. Demonstration of equipment for diagnosis, therapy and classroom use. Students will have ample opportunity to work with tape recorders, auditory trainers, and special calibration techniques.

573 Administration and Supervision of Speech and Hearing Programs (3) Nature and scope of supervisory positions in speech and hearing programs. Emphasis on administrative problems.

580 Orofacial Anomalies (3) Comprehensive consideration of the nature, causes, diagnosis, and treatment of communication disorders associated with orofacial anomalies, particularly cleft lip and cleft palate. PREREQ: SPP 203 or equivalent, or permission of department.

589 Neuromuscular Disorders (3) Nature, causes, diagnosis, and treatment of communication disorders associated with neuromuscular dysfunction, with particular attention to the cerebral palsies.

590 Independent Study (1-3) Individualized research projects, reports, and/or readings in speech pathology or audiology under faculty supervision. PREREQ: Approval of department chairperson.

598 Workshop in Communicative Disorders (3)
610 Thesis (1-6)

Computer Science—See Mathematical Sciences

Counselor, Secondary, and Professional Education

Mr. Rahn, *Chairperson*

Mr. Gottshall, *Assistant Chairperson, Graduate Studies*

Dr. Cleary, *Assistant Chairperson*

PROFESSORS

Walter E. Buechele, Jr., Ed.D., *Temple University*

Mary E. Cleary, Ed.D., *George Washington University*

Harry H. Deischer, Ed.D., *University of Pennsylvania*

Charles W. Good, Ed.D., *Temple University*

George M. Thomas, Ed.D., *Temple University*

Shirley A. Walters, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

Ronald L. Gottshall, M.A., *Michigan State University*

John Holingjak, Jr., Ed.M., *Temple University*

Yi-Ming Hsu, Ed.D., *University of Georgia*

Wallace J. Kahn, Ph.D., *University of Maryland*

F. William Leeds, M.A., *University of Pennsylvania*

Reynold D. Paganelli, C.A.S., *Johns Hopkins University*

William J. Rahn, M.Ed., *Temple University*

Jay Silverman, Ph.D., *New York University*

Julian M. Swiren, Ed.D., *Pennsylvania State University*

The Department of Counselor, Secondary, and Professional Education offers a variety of graduate programs leading to professional certification as well as the Master of Education and Master of Science degrees.

Counselor Education

The Counselor Education Program offers two degree programs. The first is a degree-certification program which leads to the Master of Education and the Educational Specialist I Certificate for elementary school counselors or secondary school counselors.

The second leads to the Master of Science degree for persons interested in counseling in post-secondary and higher education settings. A handbook describing both programs in greater detail is available from the department's graduate office.

ADMISSION TO THE PROGRAM

Applicants must possess a baccalaureate degree from an approved institution and present an overall undergraduate average of at least 2.5. They must also have achieved an average of 2.75 in at least twelve credits in certain areas of education, psychology, and sociology.

Additional criteria are satisfactory scores on the Miller Analogies Test or Graduate Record Examination (taken within the past ten years) and evidence of personal and professional qualities indicating a potential for success in the counselor education programs.

DEGREE REQUIREMENTS

Upon meeting admission criteria, students are accepted for Competency Area I, and during this phase, are evaluated for academic achievement and interpersonal relationship skills. Upon successful completion of Competency Area I and departmental recommendations, students become degree candidates for the remainder of the program, which encompasses advanced work and field experiences. Upon completion of the prescribed work and advisor's recommendation, candidates must undertake a comprehensive examination. The degree being pursued will be granted only when the student has met the standards of the Department of Counselor, Secondary, and Professional Education. Students desiring the degree without certification may take a 3 credit elective under advisement in lieu of the practicum (EDC 590 or EDC 591).

CERTIFICATION

In order to obtain the Educational Specialist I Certificate, the student must successfully complete the required practicum in an approved secondary or elementary school. This course provides opportunity for the student to work closely with a professional counselor in a public school under supervision of the faculty of West Chester University. The certificate is issued on the basis of the program approval status of the counselor education program at the University as granted by the Pennsylvania Department of Education.

MASTER OF EDUCATION: ELEMENTARY SCHOOL COUNSELING OPTION

Dr. Kahn, *Program Coordinator*

36-42 Semester Hours

Competency Area I: EDC 503, 567, 571, EDF 502 12 s.h.

Competency Area II: EDC 520, 540, 556, 572, 574 15 s.h.

Competency Area III: EDC 585, 590, EDF 510 or EDF 589 9 s.h.

Complementary coursework (EDA 500 or equivalent required) 3-9 s.h.

MASTER OF EDUCATION: SECONDARY SCHOOL COUNSELING OPTION

Mr. Gottshall, *Program Coordinator*

36-42 Semester Hours

Competency Area I: EDC 503, 567, 571, EDF 502 12 s.h.

Competency Area II: EDC 520, 540, 556, 573, 575 15 s.h.

Competency Area III: EDC 585, 591, EDF 510 or EDF 589 9 s.h.

Complementary coursework 3-9 s.h.

MASTER OF SCIENCE: HIGHER EDUCATION COUNSELING OPTION

Mr. Rahn, *Program Coordinator*

36-42 Semester Hours

Competency Area I: EDF 502, EDC 530, 531, 540, 567 15 s.h.

Competency Area II: EDC 556, 578, 592, 593 12 s.h.

Competency Area III: Any two courses selected under advisement from PSY 505, 506, 509, 512, 529, 550 6 s.h.

Complementary coursework 3-9 s.h.

COURSE DESCRIPTIONS

COUNSELOR EDUCATION

Symbol: EDC

503 Introduction to Guidance Services (3) Historical development, philosophical foundations and determinants of guidance services in contemporary elementary and secondary education. Special services, testing, group and individual counseling, other elements. Guidance as a profession; ethics; current developments and trends.

520 Counseling for Human Differences (3) Examination of differences manifested by individuals. The purpose of the examination is to prepare counselors for designing counseling strategies appropriate to the uniqueness of the client.

530 The College Student (3) In the face of increasing demands for relevance, flexibility, and vitality in the college community, workers in higher education need to know contemporary students. Hence this exploration of several aspects of the life and work of today's young adults.

531 Introduction to Counseling in Higher Education (3) Introduction to the type of counseling services which are provided in higher education and to the settings, in which these take place.

540 Assessment Methods in Guidance (3) Emphasis is on the test and non-test assessment of intelligence, achievement, special abilities, aptitudes including concepts such as reliability, validity, standardization. Elementary and secondary applications stressed.

545 Psychometric Interpretation (3) A survey course involving the use of psychometrics as the vehicle for the diagnosis of learning problems. Test interpretation and reporting are emphasized.

556 Career Development Theories and Practices (3) Theories and techniques relating to career development in children, adolescents, and adults. Career development programming within the context of a systems approach is stressed.

567 Group Dynamics (3) This course in group process focuses on the identification of the implicit and explicit role functions of the group member and the group leader. The recognition and awareness of one's behavior with multiple feedback sources is of primary concern. To initiate, develop,

and master relationships in a group setting will be the major objective of this experience.

568 The Professional Counselor in the Elementary School (3) Role, responsibilities, and practices of the contemporary elementary school counselor. Development of the guidance program; relationship to curricula; position of the counselor with respect to administration, parents, children, and teachers.

569 The Professional Counselor in the Secondary School (3) Role, responsibilities, and practice of the contemporary secondary school counselor. Referral resources, parental conference techniques, relationship with administration and staff, curricula; administrative aspects of the guidance program.

571 Theories of Counseling (3) The basic theories of counseling, with emphasis on historical and philosophical origins. Historical antecedents of each theory, and evaluation of the potential of each theory as a viable approach for school counselors.

572 Counseling and Consultative Techniques in the Elementary School (3) Practical application of the basic theories of counseling in the elementary school setting. Application of counseling and consultative techniques in simulated settings within the elementary school framework. Counselor relationships with pupils, teachers, administrators, pupil personnel staff and community resources is emphasized.

573 Counseling and Consultative Techniques in the Secondary School (3) Practical application of the basic theories of counseling in the secondary school setting. Application of counseling and consultative techniques in simulated secondary school settings, with emphasis on the pupil, teacher, administration, parents, staff, and community resources.

574 Group Procedures in the Elementary School (3) Emphasis is on mastering the basic theories and techniques appropriate to group procedures in the elementary school. Exposure to planning, implementing, and evaluating group activities.

575 Group Procedures in the Secondary School (3) Mastery of theories and techniques basic to planning and implementing group activities

in the secondary school. Evaluation of group activities is also stressed.

578 Counseling Techniques with Adults (3) A pre-practicum experience in counseling adults. Application of principles and practices; preparation and techniques for group counseling.

579 Group Procedures with Adults (3) Techniques for planning and implementation of group procedures applicable to adults in educational institutions. Topics include group counseling, group guidance, multiple counseling, problem-solving and decision-making, task group facilitation, conflict mediation, group process and outcome evaluation, and the legal/ethical implications of group work. Each student is required to conduct a group counseling experience.

585 Contemporary Issues and Trends in Guidance (3) Contemporary issues and current trends in school guidance. The student evaluates basic positions and integrates them into the prospective role of a school counselor.

590 Practicum in Elementary Guidance (3) Supervised practice in an approved elementary school. In addition to work under the direction of a professional counselor in the school setting, the student meets on campus with the practicum supervisor for intensive seminar activities.

591 Practicum in Secondary Guidance (3) Supervised practice in an approved secondary school. The student works under the direction of a professional counselor in the school setting, and meets on campus with the practicum supervisor for intensive seminar activities.

592 Practicum in Higher Education Guidance (3) Supervised counseling experiences in multiple settings within the higher education system. A related on-campus seminar is included.

593 Advanced Practicum in Guidance and Counseling (3) Intensive supervised counseling experience in an approved higher education setting. The practicum consists of an on- and off-campus experience.

598 Workshop in Counselor Education

599 Independent Study (1-3) Independent research and study under the direction of a faculty member. PREREQ: Permission of department chairperson and instructor.

Secondary Education and Professional Studies

The Secondary Education and Professional Studies Program is responsible for the professional courses offered for certification on the secondary level and in the Master of Education degree programs having academic concentrations. The department also offers other professional course work required in all M.Ed. programs and some courses designed for election by educators and others who wish to develop new insights and/or to strengthen professional skills.

In addition the department offers the degree of Master of Education in Secondary Education.

MASTER OF EDUCATION

(Secondary Education—Academic Subject Majors)

The Master of Education program is offered with academic concentrations in English, French, German, Latin, Spanish, biology, mathematics, and social science (with concentration in history).

This program is offered cooperatively by the School of Education and the Faculty of Arts and Sciences. The academic requirements for each concentration are found under the respective department.

This degree affords students the opportunity to strengthen their knowledge in the major subject area, as well as their professional knowledge and competence.

Students earning degrees in this program must be advised both by the department of the subject field and by the Department of Counselor, Secondary, and Professional Education. It is the responsibility of the students to arrange for conferences with both departments in planning their programs.

Requirements for the Master of Education

(Secondary Education—Academic Subject Majors)

36 Semester Hours

I. Professional Education Requirements* 12 s.h.

A. EDF 510 Educational Foundations (3)

B. A minimum of one course from each of the following groups:

Group 1

EDF 516 Resource Allocation in the Schools (3)

EDF 520 Comparative Education (3)

EDF 580 History of American Education (3)

EDF 581 Philosophy of Education (3)

EDF 582 Seminar in the History of the Problems of Education (3)

EDF 589 Sociological Foundations of Education (3)

Group 2

EDF 503 The Emerging Curriculum (3)

EDF 507 Values Clarification in Human Relations (3)

EDF 509 Contemporary Teaching Trends (3)

EDP 531 Principles of Educational Testing (3)

EDP 550 Advanced Educational Psychology (3)

EDP 557 Essentials of Learning (3)

EDP 559 Constructing and Evaluating Behavioral Objectives (3)

EDP 560 Behavior Modification (3)

EDP 569 Adolescent Development and Learning (3)

EDS 524 Supervision of Student Teaching (3)

EDU 502 Human Relations in the School and Community (3)

Group 3

EDC 567 Group Dynamics (3)

EDF 504 Middle School Workshop (3)

EDF 505 Individually Prescribed Instruction (3)

EDF 506 Design and Use of Individualized Learning Packages (3)

EDF 570 The Community/Junior College (3)

EDF 590 School Law (3)

EDS 502 Secondary School Curriculum (3)

EDU 501 Curriculum Adaptations for the Disadvantaged (3)

II. Subject Matter Concentration Requirements 20-22 s.h.

A. Methods and Materials of Research (2-3)

B. Academic Subject (18-20)

(See respective academic department for details)

III. Electives (Professional or Academic)* 0-4 s.h.**Comprehensive Examinations**

The student must perform satisfactorily on the final comprehensive examination covering the subject-matter concentration and the professional-education requirements.

MASTER OF EDUCATION IN SECONDARY EDUCATION

Dr. Cleary, Program Coordinator

36 Semester Hours

This program provides another option within the Master of Education, shown immediately above, and is designed primarily to strengthen the professional knowledge, skills, and understandings of the graduate student and of teachers in service, and to make their preparation more relevant to a variety of educational situations. It also provides the professional background for dealing effectively with problems encountered in secondary schools. Through its 15 semester-hour elective area, the program affords students the opportunity to strengthen their knowledge in the subject-matter field.

Admission to the Program

In addition to meeting admission requirements of the University the student must:

1. Be approved by the Department of Counselor, Secondary, and Professional Education for graduate work.

2. Attain an acceptable score on the Graduate Record Examination or the Miller Analogies Test.

It is strongly recommended that the applicant have a valid teaching certificate. Applicants whose certification is not in secondary education may, at the department chairperson's discretion, be required to take course work beyond the minimum semester-hour requirements for the degree.

Upon admission, students will be assigned advisors who will help them to outline the appropriate program. All work for the program must be approved by the advisor and the departmental graduate committee.

Requirements for Admission to Degree Candidacy

During the pre-candidacy period the student must:

1. Attain full status, if admission status to the program was provisional.
2. Complete these required courses: EDF 500, 510, and EDP 550.
3. Achieve a minimum overall average of 2.75 and a minimum average of 3.00 in the required courses in Area One or Area Two.
4. Show evidence of academic, personal, and professional qualities which satisfy the advisor and the departmental graduate committee.

Comprehensive Examination

Students must perform satisfactorily on a written comprehensive examination, which is given at least once in each semester and in regular session of summer. The examination is always given at 6:00 p.m. on Tuesday of the second week of the semester or session.

Application forms for the comprehensive examination are available from the department and must be filed with the department by December 1 for spring semester, May 1 for regular session, and July 14 for fall semester.

To be eligible the students must have:

1. Taken the required courses: EDF 500, 510 and EDP 550.
2. Completed 28 semester hours of work including the 9 semester hours of required courses and 12 semester hours from Area One or Area Two.
3. Attained a minimum overall average of 2.75 and a minimum average of 3.00 in the required courses and the courses in Area One or Area Two.
4. Received their advisors' recommendations and the approval of the departmental graduate committee.

Students who fail the comprehensive examination are allowed a second attempt. A second failure terminates candidacy.

Requirements for the Master of Education in Secondary Education

36 Semester Hours

I. Required Courses

EDF 500, 510, EDP 550—9 semester hours

II. Area of Concentration Requirements

A minimum of 12 semester hours must be selected from one of the following two areas:

A. Area One: EDF 515, 516, 520, 570, 580, 581, 582, 589, 590

B. Area Two: EDF 503, EDF 504, EDF 505, EDF 506, EDF 507, EDF 509, EDP 557, EDP 559, EDP 560, EDP 569, EDS 502, EDS 524, EDU 501.

III. Electives

15 semester hours. The electives may be from courses in Area One and Area Two above, or from courses in the student's teaching field. They may also be a combination of both.

*Chosen in conference with the secondary education and academic advisors according to the needs of the student.

COURSE DESCRIPTIONS

FOUNDATIONS

Symbol: EDF

500 Methods and Materials of Research in Education (3) Historical, descriptive, and experimental methods of research. Methods for locating, evaluating, interpreting, and reporting research data. Each student prepares a research prospectus. Offered every semester.

501 Methods and Materials of Research for Elementary Education (3) Historical, descriptive, and experimental methods of research. Methods for locating, evaluating, interpreting, and reporting research data. Introduction to graduate study for elementary majors. Offered every semester.

502 Methods and Materials of Research for Counselor Education (3) Designed to enable the counselor to read experimental, quasi-experimental, descriptive and correlational research reported in the professional journals. Both univariate and multivariate designs are emphasized. Offered every semester.

503 The Emerging Curriculum (3) Curriculum trends, beginning in 1951, for grades kindergarten through 12 by means of three comprehensive topics: (1) the curriculum reform movement, (2) emerging curriculum theory and practice, and (3) the educational reform movement. Offered in summer.

504 Middle School Workshop (3) Philosophy, administration, curriculum, staff, and facilities necessary for the most efficient educational experience in the intermediate levels of school. Offered in summer.

505 Individually Prescribed Instruction (3) Individually prescribed instructional techniques as applied in the classroom and intensive learning centers. Techniques of academic diagnosis, prescription production, and electronic learning. Students will have an opportunity to work directly with hardware and software components of an intensive learning center. (May be arranged as a workshop.) Offered in spring.

506 Design and Use of Individualized Learning Packages (3) A review of commercially available individualized learning activity packages which permit the students to progress through a learning continuum at their own pace. The student will be required to design and construct an individualized learning package in his or her teaching area.

507 Values Clarification in Human Relations (3) Knowledge of the theories of the values clarification processes as defined by Simon and others. Skills in application of the values clarification processes in personal decisions, in the classroom, and in society. (May be arranged as a workshop or as modularized independent study.) Offered in summer.

509 Contemporary Teaching Trends (3) Team teaching, programmed instruction, and various media of communication in the elementary and secondary schools are evaluated. Effective adaptation to newer practices is emphasized. Offered in summer.

510 Educational Foundations (3) History of education, integrated with educational philosophy and thought; the long evolution of education theory and issues. Offered every semester.

515 Federal and State Role in Education (3) The past, current, and future role of the federal and state governments in education in the United States. Emphasis on the applications to the Commonwealth of Pennsylvania. Impact of federal legislation since 1958. Offered in fall.

516 Resource Allocation in the Schools (3) The relationship between the American economy and the efficient allocation of resources within school systems will be examined. Designed for teachers, administrators, school board members, and parents.

520 Comparative Education (3) Major problems of education in a number of other countries are related to similar problems in the United States. Contrasting purposes and philosophies and differences in organization and administration are analyzed. Offered in fall.

570 The Community/Junior College (3) An analysis of the programs, problems, and students of a two-year college. Emphasis on the development, special philosophies, and current issues relating to the community or junior college. Designed for students preparing to be teachers and or administrators in these colleges. Offered in spring.

580 History of American Education (3) Nature and direction of American education, studied through individual and group research. Offered in fall.

581 Philosophy of Education (3) Selected philosophies and their influence on educational principles and practices in a democratic social order. Offered in spring.

582 Seminar in the History of the Problems of Education (3) Historical study of the recurrent problems of education and their solutions. Implications of these solutions for contemporary American educational problems.

589 Sociological Foundations of Education (3) Study of the socio-cultural influences on the structure of American educational institutions.

590 School Law (3) Legal structure for educational organization on state, intermediate, and local levels. Legal status of the board of education, legal responsibilities of the teacher; legal responsibilities between the board of education and the student. Offered in summer.

598 Workshop in Secondary Education (3)

599 Workshop in Professional Education (3)

EDUCATIONAL PSYCHOLOGY

Symbol: EDP

531 Principles of Educational Testing (3) Designed to prepare teachers with the skills important in the three areas of educational testing; teacher-made tests (objective and essay); computerized programs for grading and reporting results and for improving the test quality through item analysis procedure; and the evaluation of the psychometric characteristics of standardized tests. PREREQ: EDP 351 or special permission of instructor. Offered in spring and summer.

550 Advanced Educational Psychology (3) Processes by which skills, understanding, concepts, and ideals are acquired; teaching practices in relation to basic research concerning learning; similarities and differences in theories of learning. PREREQ: A course in educational psychology. EDF 500. Offered every summer.

557 Essentials of Learning (3) Study of the applications of learning theory to classroom teaching with emphasis on those principles derived from classical and operant conditioning. Retention and transfer of learning also considered. Offered in fall.

559 Constructing and Evaluating Behavioral Objectives (3) Consideration and evaluation of behavioral objectives. Students write and evaluate their own objectives under individual guidance. (May be arranged as a workshop.)

560 Behavior Modification (3) Study and implementation of principles of classical and operant conditioning to the modification of student behavior in residential and educational settings. Emphasis on such areas as classroom discipline, student values, and student study habits. (May be arranged as a workshop.) Offered in summer.

569 Adolescent Development and Learning (3) Mental, physical, emotional, and social development and behavior of the adolescent with emphasis on various types of learning. Case studies are used. Offered in fall.

598 Workshop in Educational Psychology (3)

SECONDARY EDUCATION

Symbol: EDS

502 Secondary School Curriculum (3) Current practices and trends in reorganizing the secondary school curriculum in the major academic areas. The various integrating techniques. Curriculum development. Offered in spring.

524 Supervision of Student Teaching (3) Designed for teachers who cooperate or expect to cooperate in West Chester's student teaching program. Basic principles, practices, materials, and resources for an effective student teaching program. PREREQ: Certification for teaching.

590 Independent Study (1-3) Enrollment by permission only; number of credits determined by department.

599 Workshop in Secondary Education (3)

Educational Research

Dr. Hsu, *Program Coordinator*

The School of Education offers a degree program leading to the Master of Science in educational research. Designed primarily for those desiring research positions in local school districts, the degree is also appropriate for research positions in colleges and universities, community colleges, governmental agencies, regional educational laboratories, and industry.

MASTER OF SCIENCE IN EDUCATIONAL RESEARCH

Admission to Degree Program

The applicant will be admitted to the program on the basis of:

1. A minimum over-all average of 2.50 in undergraduate studies and 2.75 in the major field.
2. Graduate Record Examination Aptitude Test.
3. Personal interview with the coordinator of the program.

Any candidate admitted to graduate study, but not to the degree program in educational research, may take RES courses with permission of the coordinator. There is no guarantee that courses taken by a non-degree student may later satisfy degree requirements for the M.S. in educational research.

Requirements for Admission to Degree Candidacy

Upon completion of 12 semester hours, which must include PSY 501 (Introductory Statistics for the Behavioral Science) and EDF 500 (Methods and Materials of Research in Education), the candidates will be advanced to degree candidacy provided they have maintained a minimum average of 3.00 and passed a qualifying examination.

The Internship

After mastery of the tool courses (PSY 501, EDF 500, PSY 502, and RES 520), students will serve an internship with an outside agency or in the Office of Institutional Research conducting educational research. During this period they will utilize the skills they have developed to design and conduct a research project under the joint supervision of university and/or host institutional personnel.

The Comprehensive Examination

To be eligible for the comprehensive examination the candidate must:

1. Have completed at least 28 semester hours and all tool courses prior to the semester in which the examination is taken.
2. Have maintained an overall average of at least 3.00.

Candidates must indicate by letter their intention to take the examination. The coordinator should receive this letter within the first ten days of the semester in which the candidate desires the examination. Candidates who fail the comprehensive examination are permitted one re-examination after an interval of at least one semester but not more than two years.

Requirements for the Degree

1. Satisfactory completion of the curriculum outlined below.
2. An overall average of 3.00 in graduate courses taken in the degree program.
3. Satisfactory performance on the comprehensive examination.
4. Completion of research report or master's thesis approved by the coordinator.

Master of Science in Educational Research

EDF 510 Educational Foundations (3)
 EDP 531 Principles of Educational Testing (3)
 EDC 540 Assessment Methods (3)
 PSY 501 Introductory Statistics for the Behavioral Sciences (3)
 EDF 500 Methods and Materials of Educational Research (3)
 PSY 502 Advanced Statistics for the Behavioral Sciences (3)
 RES 520 Research Design (3)
 CSC 501 Introduction to Computers (3)
 EDP 550 Advanced Educational Psychology (3)
 RES 590 Proposal Writing in Educational Research (3)
 RES 592 Internship Program in Educational Research (3)
 Optional: RES 600 Research Report (3) plus 3-credit elective or RES 610 Thesis (3-6)

Elective courses:

CSC 550 Computers in Education (3)
 CSC 510 Computer Programming and Numerical Methods (3)
 EDP 540 Methods of Program Evaluation (3)
 Others to be determined by program coordinator.

COURSE DESCRIPTIONS

EDUCATIONAL RESEARCH

Symbol: RES

520 Research Design (3) Principles for efficient design of experiments and other types of observational programs. Sampling techniques, methods of analysis, threats to valid inference. PREREQ: PSY 501.

590 Independent Study in Educational Research (1-3) Research project, reports, readings in educational research. PREREQ: Coordinator's approval

592 Internship Program in Educational Research (3) Opportunity for students to design, conduct, and analyze a study and to prepare a report of the research. The internship is served in

local educational agencies, county offices, federal project centers, the Pennsylvania Department of Education, or other research environments. The intern is supervised by both host and university personnel.

650 Research Report (3)

610 Thesis (3)

Environmental Education

Mr. John Holingjak, *Coordinator*

COURSE DESCRIPTIONS

ENVIRONMENTAL EDUCATION

Symbol: EDO

505 Conservation Education Curriculum (K-12) (3) Conservation education as it exists in the present school curriculum and ways to integrate conservation into elementary and secondary school disciplines. Characteristics, interrelationships, and uses of our natural resources, problems and policies of industrial management in conservation as they are related to the school curriculum.

510 Methods in Conservation Education (3) Basic concepts and practices of conservation and outdoor education and their role in the school program.

511 Environmental Education Workshop (3) A field-centered learning experience. Designed to integrate the wide range of backgrounds and interests among the participants. Based on West Chester campus and/or the campuses of other universities.

515 History of Conservation (3) Development of the conservation movement in the U.S. with

emphasis on the progressive adaptation of conservation to our changing social and economic order.

520 Organization and Administration of Outdoor Education (3) Basic concepts of outdoor education: the role of outdoor education in the school program; the initiation and administration of outdoor education.

525 Independent Studies in Environmental Education (3) Special research projects, reports, readings in conservation and outdoor education. PREREQ: Permission of coordinator.

598 Workshop in Environmental Education (3)

Urban Education

Mr. Leeds, *Coordinator*

Symbol: EDU

501 Curricular Adaptations for the Disadvantaged (3) Curricular innovations which attempt to aid the culturally disadvantaged in developing skills necessary for maximal personal adjustment to society. Survey of urban problems and their relationships to inner-city schools.

502 Human Relations in the School and Community (3) Intensive study of the inner-city community and its close relationship with the school society. Analysis of prejudice and its implication of community and school power structures.

590 Independent Study (1-3)

599 Workshop in Urban Education (3)



Criminal Justice

Dr. Francella, *Chairperson*

Dr. Metz, *Coordinator of Graduate Studies*

PROFESSOR

Thomas J. Francella, J.D., *University of Baltimore*

ASSOCIATE PROFESSORS

Harold W. Metz, Ed.D., *West Virginia University*

David W. Patterson, Ph.D., *Florida State University*

Saul H. Greenberg, J.D., *University of Baltimore*

ASSISTANT PROFESSORS

William B. Anderson, Jr., B.A., *Pennsylvania State University*

Reginald Nealy, M.S., *Lincoln University*

MASTER OF SCIENCE IN CRIMINAL JUSTICE

The Department of Criminal Justice offers a program leading to the Master of Science in criminal justice. The program consists of 36 semester hours including the following requirements:

- I. Required Credits (18 semester hours)
 - CRJ 500 History and Philosophy of Law and Justice
 - CRJ 502 Conflicts in the Criminal Justice System
 - CRJ 504 Resolution of Internal Personal Conflicts
 - CRJ 508 Research Design and Analysis
 - CRJ 524 Law and Regulation of the Youthful Offender
 - CRJ 600 Pro-Seminar
- II. Criminal Justice Electives (12 semester hours)
- III. Non-Criminal Justice Electives (6 semester hours)

ADMISSION REQUIREMENTS

All candidates must meet the general requirements for admission to a graduate degree program at West Chester University. All candidates must apply through the graduate office. Upon receipt of all necessary credentials, the graduate office will forward the application materials to the criminal justice department for further consideration.

COURSE DESCRIPTIONS

CRIMINAL JUSTICE

Symbol: CRJ

500 History and Philosophy of Law and Justice (3) This course is intended to: (a) aid the beginning graduate student in understanding the historical and philosophical influences upon the American criminal justice system; (2) introduce the student to a broad range of individuals who, over a period of 2,000 years, have made significant contributions to the formulation and process of justice; and (3) examine and analyze various other systems of criminal justice found in divergent and dissimilar cultures.

502 Conflicts in the Criminal Justice System (3) Conflicting views of participants in the criminal justice system from offense to release are explored. Analysis of the distinctive individual statements and views of victims, investigators, prosecution, defense counsel, judges, penologists, religio-psychiatric figures, convicted persons, and the general public.

504 Resolution of Internal Personal Conflicts (3) A survey course which reviews current methods of dissolving and resolving internal personal conflicts. These include transactional analysis, transcendental meditation, reality therapy, and behavior modification. Students will be introduced to theory and demonstration.

505 Theories of Criminal Justice (3) A survey of historical and contemporary efforts to explain the phenomena of crime and criminal behavior from the perspectives of sociology, psychology, economics, biology, and law. Emphasis will be placed on contemporary theory and the analysis of evidence supportive of various theoretical positions. The objective of this course is to provide the student with an understanding of the influence of the physical, social, and psychological environment of behavior which society labels as criminal.

506 Problems in Management and Administration (3) This course is intended to aid in the instruction of graduate students who are potential candidates for future administrative positions. Its objective is neither to present a new approach to the field nor to support an existing one; rather, it is to provide the student with a well-rounded view of the subject and to lay the ground work for further study. This is done by bringing together the most appropriate concepts from the various approaches to management, as well as from other disciplines, that have contributed to a fuller understanding of the subject.

508 Research Design and Analysis (3) Emphasis upon social research processes: problem identification; data collection and use; application of statistical procedures and computer techniques;

hypothesis testing and problem resolution within the framework of applied social planning and decision-making.

510 Criminal Justice Planning (3) This course is intended to aid in the instruction of graduate students who are potential candidates for future planning, evaluation or administrative positions. Given the newness of criminal justice planning, this course represents a beginning effort at a comprehensive discussion and review of justice system planning and evaluation. A good deal of time is devoted to incremental planning and the development of more useful plans through a process of successive approximations, in which plans are developed, tried out, and modified in the light of new experience.

512 Budget Research and Analysis (3) This course is intended to aid in the instruction of graduate students who presently hold administrative positions or who are potential candidates for such positions. The course represents a beginning effort at a comprehensive discussion and review of accounting, budgeting, and statistical principles and procedures. A good deal of time is devoted to zero-based budgeting and the application of the computer in decision-making.

520 Major Case Management (3) Management of investigative and administrative techniques in major crimes. Emphasizes management for maximized cost effectiveness in deployment of assets. Students will analyze and identify techniques as demonstrated in case examples. Focus placed on early recognition of crime dimensions for precise application of available personnel, equipment, and money. Control and application of finite resources is examined in relation to solution.

522 Official Corruption (3) This course analyzes the usually nonviolent criminal conduct variously described as white collar crime, official corruption, systematic crime, or violations of trust, that is characterized by calculation, deceit, and personal enrichment. Examples from industry and government (including the criminal justice system) are included.

524 Law and Regulation of the Youthful Offender (3) This course will bring together the leading cases that have reached the Supreme Court, as well as other important lower federal and state court decisions on the juvenile justice process.

530 Interviewing & Counseling the Offender (3) Techniques of counseling applicable to law enforcement and corrections officers. Areas of study include the initial interview, interrogation, handling the informer, manipulative behavior of offenders, report writing, and exit interview. Role playing and sociodrama are used.

532 Offender and Staff Rights and Responsibilities (3) A course designed to provide the people

who are involved in the correctional process with a basic introduction into the emerging field of law in this area. Encourages understanding of rights and responsibilities of the incarcerated offender and the administrative staff.

535 Assessment of the Offender (3) This course will develop students' abilities to understand, recognize, describe, and interpret psychometric measures for juvenile through adult offenders. The student will develop an understanding of the use of tests in the criminal justice field. This course will aid students involved in placement, counseling, and interviewing the offender.

540 Legal Studies in the Schools (3) To provide an understanding of practical law which will be of use to students in their every day life, and to develop a more positive attitude on the part of students as citizens toward the role that law plays in the American society. To improve analytical skills and promote critical thinking, and to decrease anti-social behavior by teaching "preventive law."

551 Criminal Justice Research (3) A broad overview of criminal justice research designed to provide a practical plan for a criminal justice research project, acquaint the student with an acceptable proposal for evaluation and implementation, and assist the student in preparing a realistic and understandable report for criminal justice decision-makers.

560 Notable Criminal Cases (3) Selected factual accounts of criminality and criminal behavior over the past 75 years are analyzed. Selection is based on significance and instructional quality of the account, and while primarily devoted to the United States, cases include one classic misfunction of another country. Course is designed, through reading and class analysis, to illuminate a wide spectrum of specific criminal conduct and the related investigative and judicial responses.

562 Criminal Behavior (3) Students will be exposed to the broad, theoretical positions on crime to observable criminal offenses. Students will learn to avoid oversimplified, dogmatic answers. Research findings on understanding and controlling crime will be discussed. The course will help a student appreciate the need to integrate contemporary psychology into an understanding of criminal behavior.

566 Survey of the Correctional Field (3) The study of federal, state, and local correctional systems, including historical perspectives, theoretical assumptions, and major changes recommended by the National Advisory Commission and the President's Task Force. Opportunities will be provided to visit institutions and agencies and participate in discussions with administrative personnel within the system.

DEGREE REQUIREMENTS

The following requirements must be met by all candidates prior to receiving the Master of Science degree in criminal justice.

1. The candidate must apply to be admitted to candidacy after the completion of twelve to fifteen hours of course work.
2. The candidate must pass a comprehensive written examination after the completion of thirty semester hours of course work.
3. The candidate must complete a minimum of thirty-six semester hours of course work with a cumulative average of 3.0 (based on a 4.0 system).

572 Instruments in the Detection of Deception

(3) A survey of polygraph development and its use from the early 1900's to the present. Covers current legislation regulating polygraph use and measures for self-regulation adopted by local, state and federal agencies. Illustrates proper and improper use of the polygraph through case examples. Demonstrates polygraph technique in a classroom laboratory setting. Other instruments measuring voice stress are described, as are the legal problems connected with their use.

580 Municipal Police Administration (3) Management and administration of local law enforcement agencies stress hands-on management to contend with the conflicting forces of budget, morale, productivity, integrity and social justice. Specific to local police.

587 Ethical Issues in Criminal Justice (3) This course is designed to identify and examine ethical issues among practitioners and students in the criminal justice field. Such issues include: the discretionary power of arrest, the use of deadly force, the decision to prosecute, participation in plea bargaining, representation of the guilty, and the imposition of punishment.

590 Practicum (6) A field experience (internship) program for pre-service students only.

599 Independent Studies in Criminal Justice (1-3) Research projects, reports, and readings in criminal justice. Approval of department chairperson.

600 Pro Seminar (3) Each graduate student will be expected to participate in a seminar in his/her

area of concentration. The end result of this seminar will be a completed research paper evaluated on the basis of: (1) selection of topic, (2) quality of research, and (3) oral presentation. **PREREQ:** CRJ 508

610 Thesis (6) Bound and shelved in the library, the thesis stands as an example of the student's ability to plan, organize, and direct a research effort designed to discover, develop, or verify knowledge.

The Department of Criminal Justice has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or department chairperson. CRJ 430, 435, 450, 451, 462, 470, 480, 487, 496.

Earth Science—See Geology and Astronomy

English

Dr. Myrsiades, *Chairperson*

Dr. Kent, *Coordinator of Graduate Studies*

PROFESSORS

Michael W. Brooks, Ph.D., *University of Toronto*

Joseph Browne, Ph.D., *University of Pennsylvania*

Joseph Falgie, Jr., Ph.D., *University of Pennsylvania*

John L. Gaunt, Ph.D., *University of Maryland*

Paul D. Green, Ph.D., *Harvard University*

John P. Kent, Ph.D., *University of Illinois*

Alice B. Markow, Ph.D., *University of Pennsylvania*

Lynette F. McGrath, Ph.D., *University of Illinois*

David E. McKenty, Ph.D., *University of Pennsylvania*

Kostas Myrsiades, Ph.D., *Indiana University*

Bernard S. Oldsey, Ph.D., *Pennsylvania State University*

S. Keith Taylor, Ed.D., *Temple University*

Robert H. Weiss, Ph.D., *Temple University*

Theodora Lee West, Ph.D., *University of Pittsburgh*

Elsie B. Ziegler, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

William D. Fordyce, Ph.D., *Harvard University*

Claude Hunsberger, Ph.D., *University of Wisconsin*

John T. Kelly, Ph.D., *University of Oklahoma*

Dwight L. McCawley, Ph.D., *University of Illinois*

William Prater, Ph.D., *Ohio University*

C. James Trotman, Ed.D., *Columbia University*

John Ward, Ph.D., *University of Delaware*

ASSISTANT PROFESSOR

Elizabeth Larsen, Ph.D., *University of Wisconsin—Milwaukee*

The Department of English offers the Masters of Arts in English. The Master of Arts permits the student to attain any of a number of goals. It may further scholarship in literature, language, and writing; prepare for study toward the Ph.D.; or

provide a foundation for teaching in high schools, community colleges, and junior colleges. The Department of English also participates in an inter-disciplinary program leading to the Master of Arts in teaching English as a second language. (See Teaching English as a Second Language.)

In addition, the Department of English encourages students to take courses for professional growth and offers assistance and courses for students wishing to acquire certification in English.

ADMISSION TO THE DEGREE PROGRAM

The applicant must (1) meet the general requirements for admission to degree study at West Chester University (See appropriate pages at the beginning of the Graduate Studies Catalog.), (2) submit results of the Aptitude Test (Morning Test) of the Graduate Record Examination, if deemed necessary, (3) satisfy departmental requirements for admission, and (4) take additional undergraduate and/or graduate courses as deemed necessary.

MASTER OF ARTS IN ENGLISH

30 Semester Hours

Degree Requirements

REQUIRED COURSES

6 s.h.

ENG 500 and ENG 501 to be taken before the completion of 12 semester hours of graduate credit)

ELECTIVES

Selected under advisement from courses in English and approved related fields (e.g., history, linguistics). At least 21 semester hours must be in English courses.

The student must pass a written comprehensive examination, offered on the second Wednesday of October, April, and July. Those who fail the examination twice must obtain the approval of the Department of English to take it a third and final time.

For more information concerning graduate work in English, see the **Handbook for Graduate English Students**, obtainable from the coordinator of graduate studies in English.

COURSE DESCRIPTIONS

ENGLISH

Symbol: ENG

GENERAL TOPICS (500-514)

500 Methods and Materials of Research (3) Basic techniques and procedures in research. The major types of research and the methods of locating, evaluating, and interpreting evidence. Includes the preparation of a research outline and paper.

501 Applied Literary Criticism (3) Study of various methods of literary analysis, with emphasis on the application of these methods in response to specific works of literature chosen from the principal genres of poetry, fiction, and drama.

502 History of Criticism (3) An historical study of literary criticism and aesthetic theory from Plato and Aristotle to the present.

507 Literature Seminar (3) Topics announced annually.

508 Writing Seminar (3) Discussion and development of major projects underway.

509 Writing Seminar I in the Novel (3) A course in the writing and preparing of book-length manuscripts (novel, novella, "non-fictional" novel) with the intention of submission for publication. Also includes coverage of fictional aspects and techniques used in writing memoirs, biography, current history.

510 Writing Seminar II in the Novel (3) A continuation of ENG 509.

ENGLISH LITERATURE (515-544)

517 Beowulf (3) An analysis of the entire poem in Old English. Emphasis on the artistic, linguistic, and historic values. PREREQ: ENG 584 or the equivalent.

518 Chaucer (3) A study of the *Canterbury Tales* and *Troilus and Criseyde*.

519 16th-Century Poetry and Prose (3) A survey of the major poetry and prose written in England during the Tudor period; Skelton to Shakespeare.

520 Spenser and Milton (3) The major works of Spenser and Milton studied in relation to the intellectual climate of the Renaissance. Emphasis on the *Faerie Queene* and *Paradise Lost*.

521 Major Renaissance Writers (3) A study in depth of major figures of the Renaissance. Intellectual background and literary influences. Donne, Milton, More, Spenser, Sidney.

522 English Drama to 1642 (3) A survey of English Drama (exclusive of Shakespeare) from its medieval beginnings to the closing of the theatres in 1642.

525 Shakespeare's Tragedies and Histories (3) Histories and tragedies read with analysis of dramatic and poetical effects.

526 Shakespeare's Comedies and Poems (3) The comedies analyzed. The poems read in relation to Shakespeare's developing, dramatic and poetic power.

527 17th-Century Poetry and Prose (3) A study in depth of the major 17th-century English poets and prose writers from Donne to Milton.

529 18th-Century Poetry and Prose (3) A study of the literature of the era, with emphasis on the cultural context, aesthetic theory, and the evolution of poetic techniques.

530 Restoration and 18th-Century Drama (3) Critical history of British drama from the reopen-

ing of the theaters to Sheridan. Major playwrights and study of theater history.

531 18th-Century British Novel (3) A study of the rise of the novel and its development in the 18th Century. Major novelists treated: Defoe, Richardson, Fielding, Smollett, Sterne.

533 Romantic Poetry and Prose (3) The poetry and prose of the early 19th century with emphasis upon the five major poets (Wordsworth, Coleridge, Byron, Shelley, Keats) and three major essayists (Lamb, Hazlitt, De Quincey).

534 Victorian Poetry and Prose (3) A study of Victorian poetry and prose to 1870; Tennyson, Browning, Ruskin, Arnold, Carlyle, Newman, Darwin, Swinburne.

535 Late Victorian and Edwardian Literature (3) A study of the poetry and prose of Hopkins, Pater, Morris, Wilde, Shaw, Hardy, and their contemporaries.

536 19th-Century British Novel (3) Development of techniques in the British novel from Scott to Hardy.

537 Modern British Novel (3) A study of the British novel from 1914 to the present.

538 Modern British Poetry (3) A comprehensive study of the major British poets from 1890 to the present. Dowson, Housman, Hardy, Owen, Yeats, Eliot, Thomas, Lawrence, Auden.

539 Major 20th-Century Irish Writers (3) A comprehensive study of significant Irish writers of the 20th century: Yeats, Joyce, O'Casey, Synge, O'Connor, O'Faolain, Beckett, Shaw.

540 Joyce and Beckett (3) Detailed critical analysis of Joyce's *Dubliners*, *A Portrait of the Artist as a Young Man*, *Exiles*, and *Ulysses*; Beckett's drama and novels.

541 20th-Century Drama (3) Principal British and American playwrights from Shaw to Pinter and Albee.

544 Seminar in English Literature (3) Topic announced when offered.

AMERICAN LITERATURE (545-564)

547 American Literary Movements (3) Major movements in the development of American literature. Influence of leading writers on literary concepts, trends, and critical dicta. Topics to be announced.

548 Hawthorne and Melville (3) A study of their works and representative literary criticism.

549 Twain and James (3) A study of their works and representative literary criticism.

551 Hemingway and Faulkner (3) The works of Hemingway and Faulkner and the literary relationship of these works.

557 Major 20th-Century American Poets (3) A close study of several major modern American poets.

558 20th-Century American Writers (3) Major writers and literary movements from 1900 to the present. Topics to be announced.

562 Modern Afro-American Literature (3) An intensive study in themes and trends in modern Afro-American literature.

564 Seminar in American Literature (3) Topic announced when offered.

COMPARATIVE LITERATURE (565-574)

565 Comparative Literature (3) Studies in international literary and cultural relations; the characteristics and relations of universal literary

types, themes, and genres. Topics to be announced.

566 Comparative Literature: The Greek Myths (3) The function and purpose of the Greek myths and their treatment in Western literature.

567 Computers in the English Curriculum (3) Applications, demonstrations, and analyses of programs to facilitate the teaching of writing and literature and to aid the student in literary research.

570 British and Continental Short Story (3) The short-story form: its origin and development. Current trends. Influences of German, French, and Russian writers upon the British form.

LANGUAGE (575-590)

575 Structure of Modern English (3) A detailed analysis of the modern descriptive approach to the study of English grammar and how it compares with the traditional approach.

576 English as a Second Language (3) Implications of the nature of language in teaching English to speakers of other languages. Methods and materials for teaching English as a second language.

PREREQ: LIN 501 or permission of instructor

577 History of the English Language (3) Review of the major influences on the development of the English language. PREREQ: LIN 501 or LIN 503.

578 Modern English (3) A study of the development of the English language from 1450 to the present (exclusive of American English).

579 Studies in American English (3) Historical processes in the development of American and British English. Regional and social dialects of American English. Usage and sociolinguistics.

580 English Language Workshop (1-4) Workshop to survey recent developments and newer concepts in English linguistics for teachers. Variable structure and credit, by arrangement with individual school districts.

584 Old English Language and Literature (3) An introductory study of the language through a reading of selected religious and secular poetry and prose.

585 Middle English Language and Literature (3) An introductory study of the language (1150-1450) through a reading of selected texts (exclusive of Chaucer).

589 Language Seminar (3) Studies in English language and linguistics. Topics announced when offered. PREREQ: LIN 501 or the equivalent.

590 Independent Study (1-3) Research projects, reports, specialized readings. PREREQ: Approval of instructor and coordinator of graduate studies in English.

TEACHING SKILLS (591-599)

591 Modern Techniques for the Teaching of English (3) Techniques of teaching language arts, composition, and literature in the secondary school. Practice in planning and designing units and courses of study. Exploration into the latest research in teaching English.

592 Literature for the Elementary School (3) The content and approach of the literature program in the elementary school.

593 Literature for the Secondary School (3) An examination of the literary interests of the secondary school student. A discussion of the works of major writers who appeal to the teenage student.

594 Directed Studies in Composition and Rhetoric (3) Offers students systematic guidance and instruction in a specially formulated project

involving scholarly or empirical research in composition.

595 Teaching Composition (3) A survey of developments and research in composition. Focus on the writing process; grading and evaluation; case approaches to writing assignments; writing across the curriculum; remedial/developmental writing.

596 Composition and Rhetoric (3) Study of rhetorical, grammatical, linguistic, logical, and psychological principles of written communication; the major modes of discourse; invention, arrangement, and style. Frequent practice in writing.

599 Workshop in English (1-6) Each workshop will focus on specific issues and problems in the teaching of English and will introduce appropriate instructional materials and techniques.



Foreign Languages

Mr. Gougher, *Chairperson*

Dr. Patton, *Assistant Chairperson*

Dr. Smith, *Coordinator of Graduate Studies*

FRENCH

PROFESSORS

Madelyn Gutwirth, Ph.D., *Byrn Mawr College*

Alfred D. Roberts, Ph.D., *University of Pennsylvania*

ASSISTANT PROFESSOR

Robert Greene, M.A., *University of Pennsylvania*

GERMAN

ASSOCIATE PROFESSOR

Ronald L. Gougher, M.A., *Lehigh University*

ASSISTANT PROFESSORS

Ralph A. Eisenstadt, M.S., *University of Illinois*

Stephen G. Gilmour, Ph.D., *University of Minnesota*

LATIN

ASSISTANT PROFESSOR

Erminio Braidotti, Ph.D., *University of Pennsylvania*

SPECIAL INSTRUCTOR

John P. Rosso, M.A., *University of Pennsylvania*

SPANISH

ASSOCIATE PROFESSOR

Jorge Escorcia, M.A., *Boston University*

ASSISTANT PROFESSORS

Erminio Braidotti, Ph.D., *University of Pennsylvania*

Christopher Soufas, Ph.D., *Duke University*

LANGUAGE AND LINGUISTICS

PROFESSOR

Philip D. Smith, Jr., Ph.D., *Ohio State University*

The Department of Foreign Languages offers two degree programs, one leading to the Master of Education in French, Spanish, German, or Latin, and the other to the Master of Arts in French or Spanish.

The department also cooperates in the offering of an interdisciplinary program leading to the Master of Arts in Teaching English as a Second Language. (See Teaching English as a Second Language.)

MASTER OF EDUCATION IN FRENCH, SPANISH, GERMAN, OR LATIN

34 Semester Hours

The M.Ed. program requires Methods and Materials of Research in Second Language Education (LAN 500), Techniques of Second Language Teaching (LAN 503), and 18 semester hours in the area of concentration. The concentration may be designed to the student's particular interest and needs; but in French, Spanish, or German, it must include one course each from Groups A, B, C, and D. In Latin the 18-hour concentration is developed from Groups A and B under advisement. Majors in any of the languages may also elect from Courses Common to All Languages (See below) for the concentration.

The Department of Foreign Languages has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or department chairperson: FRE 401 to 411 inclusive; GER 401 to 412 inclusive; LAT 401-406 and 410-412 inclusive; RUS 401-403 and 410-412 inclusive; SPA 400-406 inclusive; 414, 456, 457, and 410.

At least 12 semester hours of course work in education are required. See pages 63-64.

COURSES COMMON TO ALL LANGUAGES

Introduction to Linguistics (LIN 501) and courses LAN 502 through LAN 600. (See course descriptions.)

FRENCH

Group A
FRE 511-512-513-514-515-516

Group B
FRE 520-521-522-523-524-525

Group C
FRE 530-531-532-533-534

Group D
FRE 540-541-542-543-544

GERMAN

Group A
GER 513-514-515

Group B
GER 520-526

Group C
GER 532-533-534-535

Group D
GER 543-544-545

LATIN

- Group A**
LAT 503-511-512-514
- Group B**
LAT 515, 521 through 531,
and 535, 536

SPANISH

- Group A**
SPA 510-511-512-513-514
- Group B**
SPA 520-521-522-523-524-525
- Group C**
SPA 530-532-533-534
- Group D**
SPA 540-542-543-544-545-546

MASTER OF ARTS IN FRENCH OR SPANISH

30 Semester Hours

The M.A. programs in French or Spanish provide for either a thesis or non-thesis option. Both require 21 semester hours in the language as follows: FRE or SPA 511 and 6 hours from Groups B, C, or D

above. The thesis program includes LAN 610 and an additional elective 3 hours in the concentration. The non-thesis option allows 9 semester hours of electives in the area of concentration.

The Department of Foreign Languages has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or department chairperson: FRE 401 to 411 inclusive; GER 401 to 412 inclusive; LAT 401-406 and 410-412 inclusive; RUS 401-403 and 410-412 inclusive; SPA 400-406 inclusive and 414, 456, 457 and 410.

Electives for both options may also be from courses common to all languages. (See above.) For the M.A. program, LAN 550 is strongly recommended.

The candidate for the M.A. degree must pass a reading examination in a second foreign language or must have taken and passed at least one graduate-level course in a second foreign language.

COURSE DESCRIPTIONS

COURSES COMMON TO ALL LANGUAGES

Symbol: LAN

- 500 Methods and Materials of Research in Second Language Education (3)** Techniques of research in foreign language education including sources, design, interpretation, evaluation, and reporting of data.
- 502 Second Languages in the Elementary School (3)** Problems in teaching second languages in the elementary school. Curriculum design, bilingual education, classroom techniques, articulation, materials, testing. Preferably, LIN 501 or equivalent should precede LAN 502.
- 503 Techniques of Second Language Teaching (3)** Advanced course in recent theoretical bases; methods for teaching beginning and advanced levels; curriculum design and evaluation. PREREQ: LIN 501 or equivalent.
- 504 Use of Media in Language Teaching (3)** Role of media in language instruction including the tape recorder, language laboratory, television, and the computer.
- 505 Introduction to Bilingual/Bicultural Education (3)** Introduction to history, philosophy, current status, and future directions of Bilingual/Bicultural Education. Survey of materials, tests, techniques, instructional processes and instructional patterns. Overview of testing, placement, and pupil evaluation.
- 511 Roman Civilization (3)** Roman civilization and its influences on Europe.
- 550 Seminar in Methods and Materials of Research in Language and Literature (3)** The principal tools of research in the field of foreign language and literature. Methods of conducting and reporting research, emphasizing correctness of form and mechanics of scholarly writing.
- 560 Directed Studies (3)** To provide an opportunity for students to pursue areas of study not regularly provided by the department. Focus of course to be announced when offered.
- 580 Seminar in Second Language Education (1-4)** Specialized workshop seminar devoted to a particular area of foreign language education.
- 585 Institute in Second Language Education (4-8)** In-depth study of a particular area of foreign language education.
- 590 Independent Study (1-3)**

600 Research Report (1-2)

610 Thesis (6)

See also Linguistics (LIN)

FRENCH

Symbol: FRE

- 511 Romance Philology (French) (3)** Historical development of French phonology and morphology from their beginnings to the present. Old French dialects.
- 512 Explication de Textes (3)** This French technique of textual and stylistic analysis is studied and practiced.
- 513 Phonetics (3)** Mastery of pronunciation and intonation of the French language through use of the phonetic alphabet. Laboratory drill with recordings of leading phoneticians.
- 514 Advanced Grammar and Stylistics (3)** A conceptual approach to French grammar. Principles of French grammar and syntax; evaluation of recent changes in grammar and usage.
- 515 French Civilization (3)** French civilization as reflected in its art, music, philosophy, and sociopolitical structure.
- 516 Exercises de Style (3)** A study of French literary styles and the language of French literary criticism.
- 520 Rabelais (3)** Rabelais: Critical studies of his life and works.
- 521 Moliere (3)** The plays of Moliere; his life and times. History of comedy in France.
- 522 Voltaire (3)** Major works of Voltaire. Analytical scrutiny of his philosophical views. The impact of Voltaire on the character of Western civilization.
- 523 Rousseau (3)** The works of Rousseau; their philosophical implications and stylistic character. Analysis of the important critical writings on Rousseau.
- 524 Balzac (3)** The works of Balzac and a review of Balzacian criticism.
- 525 Proust (3)** Reading and analysis of *A la recherche du temps perdu*. Survey of Proustian criticism; Proust the man. His place in the history of the novel.
- 530 French Classical Tragedy (3)** The tragedies of Corneille and Racine; the history of tragedy in France.

531 The French Novel (Through the 19th Century) (3) History of the novel in France. The works of the major French novelists of the 19th century: Hugo, Stendhal, Balzac, Flaubert, Zola

532 The 20th Century French Novel (3) The French novel in the 20th century and the philosophical, social, and aesthetic doctrines which helped to shape this literary form.

533 French Lyric Poetry (3) Evolution of French lyric poetry, with stress on the 19th century. Forms, techniques, rules of French versification.

534 The Contemporary French Theater (3) Principal dramatic works of the 20th century, analyzed against the history of the theater in France.

540 Medieval French Literature (3) Selected literary masterpieces, representing the various medieval genres: lyric poetry, epic, romance, allegory, fabliaux, prose chronicle, and drama.

541 French Literature of the Renaissance (3) Evolution of literary doctrine in the French Renaissance. Influence of various philosophical and aesthetic currents such as Platonism and Petrarchism.

542 Studies in the 17th Century (3) Selected writers and their works. Development of literary and aesthetic doctrines of the classical period.

543 Studies in the 18th Century (3) Selected masterpieces of the 18th century. Evolution of social and political ideas as reflected in the literary activity of the period.

544 Studies of the 19th Century (3) Selected writers of 19th century France. An examination of the literary doctrines which evolved through the century.

GERMAN

Symbol: GER

- 513 Phonetics (3)** The sounds, forms and structure of modern standard German, using recorded materials and selected texts.
- 514 Advanced Grammar and Stylistics (3)** Stylistic qualities of modern German, analyzed in selected texts. Oral and written drill.
- 515 German Civilization (3)** Social structure of Germany; evolution of its institutions; German achievements in the arts.
- 520 Goethe (3)** Goethe's works and his development toward classicism. Critical works dealing with his life and writings.

- 526 Kafka (3)** The works of Kafka; criticism dealing with his life and writings.
- 532 The Novelle (3)** The German short story from Goethe to the present, including the German Feuilleton and the post-World War II writers.
- 533 German Lyric Poetry (3)** Major representative poets of the 19th and 20th centuries.
- 534 German Drama of the 19th Century (3)** The works of the major German dramatists of the 19th century.
- 535 German Drama of the 20th Century (3)** The works of the major dramatists of the 20th century with attention to expressionism and post-World War II dramatists.
- 543 The German Romantics (3)** Selected writers of the German Romantic period.
- 544 19th Century German Realism (3)** Major prose and poetry of German realists.
- 545 The German Expressionists (3)** Major representative poets of the expressionistic movement.

LATIN

Symbol: LAT

- 503 Techniques of the Teaching of Latin (3)** Survey and analysis of texts and other materials for teaching Latin. Recent methods for elementary and secondary levels. Curriculum for the secondary level.
- 511 Comparative Grammar and Syntax of Greek and Latin (3)** The relation of Greek to Latin within the Indo-European family of languages. Survey of the external histories of Greek and Latin. Greek and Latin phonology and morphology with references to principles of syntax.
- 512 History of the Latin Language (3)** Development of the Latin language from the earliest inscriptions to the 9th century A.D., with some consideration of the prehistoric language and people in Rome.
- 514 Advanced Latin Prose Composition and Translation (3)** Intensive review of Latin syntax, with translation of English passages into Latin and vice versa.
- 515 Seminar in Greek and Roman Civilization (3)** A study of literary texts and archaeological documents illustrative of the Greek mind and or Roman genius.
- 521 Cicero's Philosophical Essays (3)** Studies in the *Somnium Scipionis*, *Tusculan Disputations*, *De Natura Deorum* and *De Officiis* with reference to Cicero's political theory and practice.
- 522 Virgil, Eclogues and Georgics (3)** Studies in the themes and methods of Virgil's *Eclogues* and *Georgics*.
- 524 Comedies of Plautus (3)** Origins of "comedy of matters;" studies in Plautian comedy and in its influence upon later writers of comedy.
- 525 Latin Metre and Verse (3)** The formal structure and development of Latin verse from its beginnings to the 20th century. Illustrative readings in early, classical, medieval, and modern Latin poetry.
- 526 Greek and Latin Epic (3)** The Greek epic from Homer to Apollonius of Rhodes and the

Latin epic from Naevius to Virgil. Readings from the classical epics.

- 527 Roman Historiography (3)** Selections from Sallust, Caesar, Livy, Tacitus, and Suetonius. Origin, development, and influence of Roman historiography.
- 528 Roman Satire (3)** History of Roman satire and the development of Lucilian Satire. A comparative study of the satires of Horace, Persius, and Juvenal.
- 529 The Latin Novel (3)** Emergence and development of the Latin novel. Readings in Petronius' *Cena Trimalchionis*, Seneca's *Apocolocyntosis*, the Pompeian Inscriptions, and Apuleius' *Metamorphoses*.
- 530 Medieval Latin Literature (3)** Latin poetry and prose from the 14th to the 17th centuries, with emphasis on the acquisition of good reading knowledge of medieval Latin in different periods and styles.
- 531 Latin Epigraphy (3)** Latin inscriptions from the earliest period to the 8th century A.D. A study of the development of the Latin language.
- 535 Seminar in Interpretation of Latin Literature (3)** Study of various modern approaches to Latin literature. Analysis of selected passages or themes from selected authors.
- 536 Literary Criticism in Antiquity (3)** Study of selected authors or works with reference to both ancient and modern (e.g., Horace and Quintilian) criticism and interpretation.

SPANISH

Symbol: SPA

- 510 Advanced Spanish Phonetics (3)** Theoretical and practical approach to phonology, phonetics, and phonetic transcriptions. Regional and dialectal variations.
- 511 Romance Philology (Spanish) (3)** The development of Old Spanish from Vulgar Latin and Protoromance, with analysis of Spanish phonology, morphology, and syntax. Readings in Old Spanish.
- 512 Advanced Spanish Grammar and Stylistics (3)** An informal rapid review of Spanish grammar, with emphasis on problems fundamental to the American classroom. Exercises include idiomatic expression, various levels of style, and translation.
- 513 Advanced Oral Spanish (3)** An intensive course for teachers and professionals seeking improvement in oral Spanish. Emphasis on vocabulary and idiom acquisition via discussions, readings, and reports.
- 514 Spanish Civilization (3)** Major philosophical and artistic contributions of the Hispanic world to Western civilization. Spain's social and economic institutions, and the character of her people as reflected in the arts.
- 520 Cervantes (3)** Life and works of Miguel Cervantes Saavedra: *Novelas ejemplares*, *Ocho comedias y ocho entremeses*, *La Numancia*, *La Galatea*, all of which lead to the study of the meaning, philosophy, and influence of *Don Quixote*.
- 521 Juan Ruiz, Arcipreste de Hita (3)** The *Libro de Buen Amor* as a major work in Spain's poetic development.
- 522 Lope de Vega (3)** The Spanish *comedia* viewed as an expression of the Spanish people. The popular and national elements of this theater. Lope de Vega as the chief innovator and leading figure of the first half of the Golden Age.
- 523 Galdós (3)** Benito Perez Galdós: his novels of social reform, enlightenment, and conversion.
- 524 Valera (3)** Juan Valera's psychological novels, set in 19th century Andalusia.
- 525 Unamuno (3)** The philosophical ideas of Unamuno studied in his critical essays, plays, and novels.
- 530 Spanish Comedia of the Golden Age (3)** Survey of the *comedia* before Lope de Vega; the contributions of Lope de Vega; Tirso de Molina and Ruiz de Alarcón; the Baroque theater of Pedro Calderón de la Barca.
- 532 The Picaresque Novel (3)** The picaresque novel as an indigenous creation of Spain; *Lazarillo de Tormes*, *Guzmán de Alfarache*, *Vida del Buscón*, the picaresque novel as a tradition in Spain and an influence in other literatures.
- 533 The Generation of 1898 (3)** The revitalizing forces which took hold in the late 19th century and a study of the works of Unamuno, Azorín, Menéndez Pidal, Pío Baroja, Valle Inclán, Benavente, Martínez Sierra, and Rubén Darío.
- 534 Spanish Lyric Poetry (3)** Spanish lyric poetry, with emphasis on early forms, the Renaissance Italianate forms, and the blossoming of lyric poetry in the 19th and 20th centuries.
- 540 Medieval Spanish Literature (3)** The *mester de juglaría* and the *Poema del Cid*; early related epics and the *mester de clerecía*; Spain's early historical chronicles. Beginnings of the Spanish theater.
- 542 Spanish Romanticism (3)** The Spanish Romantics and *costumbristas*; Duque de Rivas, Espronceda, Gómez de Avellaneda, Becquer, Larra, Mesonero Romanos. The dramatic novels of Pardo Bazán, Palacio Valdés, Clarín, and Galdós.
- 543 Contemporary Spanish Theater (3)** The "Ibsenite" and social dramas of the late 19th century represented by the plays of Lope de Ayala, José Echegaray, and Galdós. The transition period headed by Martínez Sierra and the brothers Quintero. Spain's modernist drama exemplified by Federico García Lorca and Alejandro Casona.
- 544 Masterpieces and Movements in Spanish Literature (3)** A seminar on the development of Spanish thought and artistic expression through selected masterpieces of literature and art.
- 545 The Latin American Novel (3)** The development of the novel in Latin America. The colonial period, the period of independence, the romantic period; realism, modernism, *criollismo*, and naturalism.
- 546 The Black in Spanish American Literature (3)** The characterization of blacks in Spanish American literature and the political and social context of their portrayal.
- 556 Seminar I (3)**
- 557 Seminar II (3)**

Geology and Astronomy

Dr. Pritchard, *Chairperson*

Dr. Greenberg, *Coordinator of Graduate Studies*

PROFESSORS

Seymour S. Greenberg, Ph.D., *Indiana University*

George F. Reed, Ed.D., *University of Pennsylvania*

Paul R. Widick, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

Louis A. Casciato, M.S., *Villanova University*

John E. Ehleiter, Ed.D., *Pennsylvania State University*

Hubert E. Harber, M.A.T., *Brown University*

Allen H. Johnson, Ph.D., *Case Western Reserve University*

Sandra F. Pritchard, Ph.D., *University of Oregon*

ASSISTANT PROFESSORS

Arthur R. Smith, Ed.D., *University of Pennsylvania*

C. Gil Wiswall, Ph.D., *University of Montana*

The Department of Geology and Astronomy, in cooperation with the Departments of Chemistry and Physics, offers a program leading to the Master of Arts degree in physical science. See Physical Science Program.

COURSE DESCRIPTIONS

Geology and Astronomy

Symbol: ESS

502 Mineralogy (3) Properties, identification, occurrence, and crystallography of the more important minerals. Fundamentals of mineral composition and structure.

503 Principles of Physical Geology (3) Composition of the earth (minerals and rocks) and earth processes (weathering, erosion, metamorphism, volcanism, diastrophism).

504 Historical Geology (3) Geologic history of the earth and the evidence for this history. Examination of fossils and geologic maps.

505 Petrology (3) Origin, classification, and identification of rocks. Field and hand specimen examination.

507 Geology of the Solar System (3) The geology, origin, and properties of planets, comets, asteroids, moons, and meteorites and planetary exploration. PREREQ: One introductory course in astronomy and one in geology.

508 Field Geology (1-3) Practical experience in techniques and tools of the field geologist. PREREQ: An introductory geology course

510 Intermediate Mineralogy (3) How the petrographic microscope, x-ray diffraction, and the electron microscope are used to identify minerals.

511 General Astronomy (3) Motions of bodies in the solar system; astronomical coordinates; measurement of time; use of telescopes.

513 Principles of Geochemistry (3) Migration and distribution of the chemical elements within the earth; chemistry of the lithosphere, hydrosphere, and biosphere; chemical changes throughout earth history; the geochemical cycle.

518 Structural Petrology (3) Deformation mechanisms, rheology, theory of strain: formation and evolution of tectonic features (cleavage, folds, mountain belts, etc.). Lab work involves detailed analysis using light and electron microscopes, and mathematical manipulation both with and without computers. PREREQ: MAT 161, 162, CHE 104. Permission of instructor.

520 Structural Geology (3) Sequential development of the structural features of the earth; the forces involved. PREREQ: ESS 503, 504.

523 General Geologic Field Studies of Southeastern Pennsylvania (3) Occurrence, relationships, and geologic history of the rocks, minerals, and soils of this area, studied at representative locations.

524 History of Geology (1) Outstanding individuals and their contributions to geology.

525 Tectonics (3) Kinematics and consequences of plate motion, origin of orogenic belts, identification and analysis of modern counterparts: accretionary wedge, magmatic core and thrust systems. Lab work involves vector analysis of plate motion and palinspastic reconstructions of thrust systems. PREREQ: ESS 305, 320.

526 Economic Geology (3) The geologic origin, accumulation, and distribution of metalliferous economic mineral deposits. Also investigates exploration methods. PREREQ: ESS 503.

ESL 527 Electron Microscopy I (3) A one-semester lecture/laboratory course in theory operation and applications of electron beam technology in scientific research. Course scheduled on student-demand basis.

528 Engineering Geology (3) The application of geological factors into the planning and design of engineered construction. PREREQ: ESS 503.

ESL 529 Electron Microscopy II (3) A one-semester lecture/laboratory course in advanced theories operation and applications of electron microscopy in scientific research. Emphasis on individual projects. PREREQ: ESL 527. Course scheduled on student-demand basis.

530 Principles of Oceanography (3) Geology of the ocean floor, water movements, chemical characteristics of sea water, vertical and horizontal distribution of plants and animals. Brief history of oceanography.

531 Introduction to Paleontology (3) Identification and study of common fossils in order to understand their life processes and geologic significance.

536 Environmental Geology (3) The application of geological information to human problems encountered in the physical environment such as flooding, earthquakes, volcanic activity, hydrology, and land use. PREREQ: ESS 503.

539 Hydrology (3) The study of subsurface water, its total volume, and availability, and the relationship between surface and subsurface waters.

540 Introduction to Meteorology (3) Composition and properties of the atmosphere and principles that influence weather conditions.

541 Geology and Geography of Plants (3) Study of paleo and modern spatial characteristics and distributions of vegetation and their relationships to the geologic, geographic, climatic and man-induced features of the environment. PREREQ: ESS 101 OR GEO 101.

542 Geophysics (3) Methods and techniques of physics applied to interpreting the internal structure and composition of the earth. PREREQ: ESS 503.

543 Geomorphology (3) Lectures will present the constructional and degradational processes which have shaped present landforms and are constantly modifying those landforms. Laboratories will focus on the interpretation of topographic maps and the use of remote sensing materials. Field studies will be included.

544 Regional Geomorphology of North America (3) Lectures will direct the student through a systematic analysis of the surface configurations and landform regions of North America; the processes at work on these configurations in the past and at the present; and man's relationships to these features and processes. Laboratories will emphasize these features, processes, and relationships through the use of topographic maps and remote sensing materials. Field projects will be included. PREREQ: ESS 543.

545 Petroleum Geology (3) The characteristics of geologic origin and occurrence, migration, and accumulation of petroleum. Also includes a study of reservoir fluids, traps, and dynamics and investigation of exploration methods. PREREQ: ESS 503.

550 Sedimentation and Stratigraphy (3) Development of the relative geologic time and methods and techniques for the description and the evaluation of the physical, chemical, and biologic environment existing at the time of formation of stratified rock. PREREQ: ESS 503, 504

551 Stellar Astronomy (3) Properties of stars; unusual stars, interstellar matter, and stellar evolution; distribution and motions of the home and other galaxies. PREREQ: Any general descriptive astronomy course

553 Nautical Astronomy (Celestial Navigation) (3) A study of the technical skills of celestial navigation covering such topics as celestial coordinates, principles of time, and the navigational triangle, lines of position and star identification. PREREQ: Any algebra and trigonometry course.

554 Archeoastronomy (3) A study of the ancient astronomical skills of the world including those of the Babylonians, Egyptians, Greeks, Chinese, Maya, Incas, Aztecs and the North American Indians. PREREQ: Any descriptive astronomy course.

555 Intermediate Astronomy (3) An analytical and qualitative analysis of selected astronomical phenomena. Such topics as: telescope optics (including photographic and photoelectric attachments), lunar and planetary orbits, stellar motions

and magnitudes, galactic classifications and distances. Two hours of lecture. Two hours of laboratory

562 History of Astronomy (3) The development of astronomical theories from Greek times until the 20th century. PREREQ: ESS 111.

575 Introduction to the Planetarium (3) Principles and use of the planetarium in teaching. Specific projects are assigned. PREREQ: ESS 550

580 Astronomy in England (3) The development of astronomical theories and equipment in England from prehistoric times until 20th century. PREREQ: An introductory course in astronomy and permission of instructor. Offered only in summer.

581 Geology in England (3) The major rocks, minerals and fossils of England and how they are used in the development of geologic principles. PREREQ: An introductory course in geology and permission of instructor. Offered only in summer

591 Independent Study (1-3) An investigation by a student. PREREQ: Permission of department

594 Geology of the NW National Parks (4) This course includes a field trip to the national parks in the states of South Dakota, Wyoming, Montana, Idaho, northern Utah and Colorado. The purpose of the course is to look at the geologic

features of the National Parks in these states, and to develop an appreciation of the geology and geologic history of the region. PREREQ: ESS 503, 504

595 Geology and the SW National Parks (4) The course includes a field trip to the National Parks in the states of New Mexico, Arizona, southern Utah and Colorado. The purpose of the course is to look at the geologic features of the National Parks in these states, and to develop an appreciation of the geology and geologic history of the region. PREREQ: ESS 503, 504.

650 Institute in Planetarium Education (1-3) A course that provides the novice and inexperienced planetarium teacher with fundamental concepts that can be taught in the planetarium, intensive study of effective planetarium teaching methods, and supervised training and practice in the operation, use and maintenance of the planetarium. PREREQ: Permission of instructor. (Summer only)

Any of the following dual-level courses (but not more than 6 semester hours of credit) may be taken for graduate credit toward the degree:

ESS 555 Intermediate Astronomy
ESS 575 Introduction to the Planetarium

(All are 3-credit courses.)
See also Science Education.

Science Education

COURSE DESCRIPTIONS

SCIENCE EDUCATION

Symbol: SCE

500 Modern Trends in Science Education (3) Introduction to current research in science education; a critical review of the literature. Required for M.A. in physical science

501 Modern Trends in Teaching Earth and Space Science (3) Recent materials and techniques in secondary school earth and space science.

510 Workshop in Secondary School Curricula (3) Study of one of the commonly used science programs for secondary schools. The selected program is announced in advance.

595 Elementary School Science Instruction (3) A course to improve the science content backgrounds of elementary-school teachers and administrators.

PHS 502 Modern Trends in Teaching Physical Science (2) Materials and techniques in secondary school physical science. Required for M.A. in physical science.

SCIENCE OFFERINGS DESIGNED FOR ELEMENTARY SCHOOL TEACHERS

PHS 571 Physics for the Elementary Teacher
SCE 595 Elementary School Science Instruction

Government and Planning

Mr. Bielski, *Chairperson*

Dr. Marbach, *Assistant Chairperson*

Mr. Bielski, *Coordinator of Graduate Studies: Geography and Planning*

Mr. Burton, *Coordinator of Graduate Studies: Public Administration*

Dr. Milne, *Director, M.S. in Administration*

GEOGRAPHY/PLANNING FACULTY

PROFESSOR

Arlene C. Rengert, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

F. Robert Bielski, M.A., *University of Illinois, A.I.C.P., American Planning Association*

Charles W. Grassel, M.S., *University of Pennsylvania*

William J. Rampon, M.A., *University of Oklahoma*

John C. Tachovsky, Ph.D., *University of Cincinnati*

Wesley W. Thomas, Ph.D., *University of Cincinnati*

POLITICAL SCIENCE/PUBLIC ADMINISTRATION FACULTY

PROFESSORS

Thomas J. Brady, J.D., *Temple University*

Robert J. Marbach, Ph.D., *Temple University*

James S. Milne, Ph.D., *Temple University*

John C. Shea, Ph.D., *University of Pittsburgh*

ASSOCIATE PROFESSORS

William F. Burns, M.A., *Case Western Reserve University*

A. Wayne Burton, M.A., *University of Pennsylvania*

David S. Eldredge, A.M.T., *Harvard University*

Lawrence V. Iacono, M.Ed., *West Chester University*

Bhim Sandhu, Ph.D., *University of Missouri*

ASSISTANT PROFESSOR

James G. Smith, Ph.D., *Indiana University*

The Department of Government and Planning offers programs leading to the Master of Arts in geography, the Master of Arts in political science, and the Master of Science in Administration with concentrations in public administration and urban and regional planning. The latter is an interdisciplinary degree described on page 20 under Administration. The Master of Arts in geography is designed to develop skills and expertise useful in solving society's problems in such areas as land planning and management, conservation of resources, and location of commerce and industry. The Master of Arts in political science is most appropriate for persons active in teaching, government, politics, commerce, or industry, as well as for those who wish to enrich their cultural background.

MASTER OF ARTS IN GEOGRAPHY

33 Semester Hours

1. Required Courses 15 s.h.
GEO 505, 506, 508, 581 and 585
2. Thesis 6 s.h.
GEO 610
3. Elective Courses 12 s.h.
Selected under advisement from Geography, Geology, Mathematics, Statistics, or Computer Science.
4. Oral examination in defense of Thesis (Required)

MASTER OF ARTS IN POLITICAL SCIENCE

Concentration: Political Science

30 Semester Hours

1. Research Area 6 s.h.
ADM 500—Methods and Materials of Research and ADM 600—Research Report required/option of Thesis ADM 610
2. Political science/public administration electives selected under advisement 12 s.h.
3. Electives from offerings of any of the following programs: 12 s.h.
Anthropology, Criminal Justice, Geography, History, Planning, Psychology, Social Work, Sociology. (under advisement)
4. Comprehensive examination (oral and written) is required. Exam is based on key works in the discipline.

MASTER OF SCIENCE IN ADMINISTRATION

Concentration in Public Administration

36 Semester Hours

1. Administration Core (Required) 18 s.h.
ADM 501, 502, 503, 504, 505, 506
2. Public Administration Core* Option. 18 s.h.
Focus on state/local government

*Students with undergraduate majors in political science and/or urban planning may be permitted, under advisement, to substitute appropriate courses.

ADM 500 Methods and Materials of Research (3)
PSC 544 American Public Policy (3)
PSC 549 Politics of Bureaucracy and Administrative Behavior (3)
ADM 600 Research Report (3)
GEO 525 Urban and Regional Planning (3)
GEO 527 Planning Law and Organization (3)

OR

3. Individually Contracted Public Administration Core* 18 s.h.
Option. Specialized focus under advisement to meet student career goals/needs
ADM 500 Methods and Materials of Research (3)
PSC 544 American Public Policy (3)
PSC 549 Politics of Bureaucracy and Administrative Behavior (3)
ADM 600 Research Report (3)
ELECTIVE
ELECTIVE
The objective of option #3 is to allow particular tailoring of courses from University graduate programs to satisfy career goals of students with specialized needs. Both concentration options allow for Internship experience of 3-6 credit hours depending on prior student preparation/courses (ADM 612 Internship).
4. Comprehensive examination in concentration is required. The examination will be based upon a selected bibliography of key works in the concentration. The bibliography will be provided at the time the student is admitted to the program.

MASTER OF SCIENCE IN ADMINISTRATION

Concentration in Urban and Regional Planning

36 Semester Hours

1. Administration Core (Required) 18 s.h.
ADM 501, 502, 503, 504, 505, 506
2. Urban and Regional Planning Core (Required) 6 s.h.
ADM 500 Methods and Materials of Research (3)
GEO 525 Urban and Regional Planning: Theory and Practice (3)
3. Urban and Regional Planning Electives (Selected under Advisement) 12 s.h.
GEO 505, 506, 507, 509, 521, 524, 526, 527, 530, 590, 610, 615
ADM 600, 612
PSC 542, 544
4. Each student in this concentration will develop with the graduate coordinator a tailored contract of courses meeting the needs of the student. The individualized contract will address the background and career goals of the student.
5. Comprehensive examination (written) in concentration is required. The examination will be based upon a selected bibliography of key works in the concentration. The bibliography will be provided at the time the student is admitted to the program.

COURSE DESCRIPTIONS

GEOGRAPHY

Symbol: GEO

505 Map Design (3) Map design methods and techniques. Presentation of statistical data in map form. PREREQ: Introductory cartography or consent of instructor.

506 Environmental Hazards and Site Planning

(3) This course will be concerned with aspects of the physical environment that must be considered in the planning for any site for urban, industrial, or suburban activity. The main thrust will be hazard-zone planning; either the avoidance of risks or minimization of risks from natural hazards or man-made hazards in planning such activities.

507 Maps and Aerial Photographs in the Planning Process (3)

Designed to improve map and photo interpretation skills. Emphasis on increased understanding of U.S.G.S. quadrangles, and special-purpose statistical maps.

509 Quantitative Methods in Planning (3) Fundamental statistics, methods, and techniques

applied to urban and regional planning research and decision-making

521 Suburbanization and Land Development (3) Component systems and functional operations of urban/suburban communities, including ecological and demographic aspects. Emphasis upon organization, development, change, and problems of communities.

524 Population Processes (3) Characteristics and distribution of world populations are studied. The dynamic processes of population change (mortality, fertility, and migration) are examined

525 Urban and Regional Planning (3) Application of community-planning theories and methods to designated urban and regional systems.

526 Metropolitan Systems and Problems (3) Urbanization processes and problems, urban systems in the expanding metropolitan and regional setting; present and proposed efforts to solve urban problems.

527 Planning Law and Organization (3) An insight into the role of federal, state, and local governments in instituting, executing, and judicially-reviewing laws and regulations pertaining to land uses. Special emphasis is given to legal organization of the planning process particularly at the local level. Major land-use court cases are presented and reviewed

530 Demographic Analysis (3) A course to develop skills in basic demographic research, emphasizing the uses and limitations of data sources, and the understanding and interpretation of specific analytic methods for population analysis.

540 Geography of the United States (3) A regional study of the United States, emphasizing relationships between physical geography and man's economic and political responses to environmental circumstances.

544 Geography of Latin America (3) Regional geography of Latin America—its physical base, settlement, agriculture, mining, and manufacturing. Inter-American relations are considered

545 Geography of Europe (excluding the U.S.S.R.) (3) Regional study of Europe. Influences of environmental factors, such as climate, landforms, and soils on the economic, social, and political condition of European nations.

546 Geography of Soviet Union (3) European and Asiatic U.S.S.R. and its satellite nations. Elements of the environment and regional divisions in relation to resource base and economic political objectives.

571 Conservation Workshop (3) An appraisal of resource conservation and resource management practices in the context of regional planning.

572 Seminar in Resource Management (3) Research problems in resource management, done on an individual-student, or team-study basis.

581 Seminar in Modern Philosophy of Geography (3) Modern geographic thought with emphasis on contributions of American geographers and their most recent views

585 Geography Field Methods (3) An advanced field course which includes urban and land-use studies. Utilization of field methods, mapping, and data collection for geographical reports

590 Independent Studies in Geography (3) Research projects, reports, readings in geography. PREREQ: Approval of discipline graduate coordinator

610 Thesis (3 or 6) A thesis is developed on a research problem for which the student develops a theory, proposition or hypothesis, and investigates available information on the subject.

615 Internship in Urban and Regional Planning (3 or 6) On-the-job experience in the application of theory, execution of substantive research, and provision of service with professional agencies at selected off-campus locations

POLITICAL SCIENCE

Symbol: PSC

515 Women in Politics (3) The role of women in politics is surveyed. Considerations include the relationship between the sexes as it has an impact on politics

525 The American Presidency (3) Analysis of the presidency, stressing its evolution into a modern institution and the contemporary behavioral aspects of the office. Personality, power, and campaign strategy in conjunction with presidential relations with the executive branch, Congress, courts, and the media

531 Modern Political Theory (3) Critical analysis of enduring political problems as seen primarily in the writings of theorists from Machiavelli to the present; basic concepts of political science; theories concerning the proper role of the state in society

532 International Relations (3) Factors which motivate the actions of nations; machinery which members of the nation-state system have evolved for effecting their various policies. Methods of diplomacy, international law, international organization

533 Congressional Politics (3) The politics of and the legislative process in Congress. Internal influences on the Congressional performance such as rules, norms, and behavior and external influences including the executive and interest groups.

534 American Political Parties (3) Patterns, functions and history of the American political party system at national, state, and local levels. Theoretical and empirical studies of political interest groups, public opinion, voting behavior.

540 American Constitutional Law (3) Evolution of constitutional law through study of the leading decisions of the Supreme Court and their

significance for the American governmental system.

541 Latin-American Culture and Politics (3) Comparative analysis of contemporary Latin-American systems. Stress of political culture, decision making, ideologies and political processes.

542 Dynamics of Public Opinion and Political Behavior (3) The political role and style of masses and elites; uses and abuses of polls, political socialization, voting behavior, campaigning and media. Understanding individual opinion formation (micro) and mass publics (macro).

544 American Public Policy (3) Survey of literature; examination of approaches; discussion of concepts and issues in the field of American politics and policy processes.

548 The Communist Powers (3) Comparative study of various Communist systems, particularly the U.S.S.R. and China. Elite-mass relationships; role of Marxism-Leninism; party, economic, and political structures. Secondary attention to Eastern Europe, Cuba and non-ruling parties.

549 Politics of Bureaucracy and Administrative Behavior (3) In-depth examination of the fourth branch of government. Impact of administrative apparatus (bureaucracy) on public policy formulation and implementation in the United States.

551 The Politics of Non-Western Areas (3) Problems of nation-building, political participation, and elite-mass relationships in the less developed nations. Latin American, Asian, or African nations may be stressed as a case study.

552 Civil Liberties and Civil Rights (3) Analysis of constitutional rights and governmental attitudes with respect to civil liberties. Emphasis on case-study method and role-playing.

560 The Politics of Revolution (3) Synthesis of research, concepts, and theories of revolution. Stress on the meaning, causes, phases, and ideologies of revolution. Contemporary movements emphasized.

590 Independent Studies in Political Science (1-3) Research projects, reports, and readings in political science. PREREQ: Approval of department chairperson.

ADMINISTRATION

Symbol: ADM

500 Methods and Materials of Research (3) Logic of scientific methodology, research design construction. Stress on hypothesis development and testing, data collection, measurement problems, theory application.

600 Research Report (3)

610 Thesis (3)

612 Internship (3-6) Intensive field placement in organization under faculty guidance/supervision. Pre-contracted learning objectives.

Health

PROFESSORS

John D. Lemcke, Ed.D., *Temple University*

Dorothy R. Nowack, Ph.D., *University of Maryland*

ASSOCIATE PROFESSORS

J. Thomas Fisher, M.S., *University of Illinois*

Phyllis A. Goetz, Ph.D., *University of Maryland*

Roger W. Mustalish, Ph.D., *University of Minnesota*

John R. Steinmetz, Ed.D., *Temple University*

Carol R. Weber, Ph.D., *University of Maryland*

ASSISTANT PROFESSOR

Maura J. Sheehan, Sc.D., *University of Pittsburgh*

ADJUNCT INSTRUCTORS

Kent E. Patterson, M.S., P.E., *Oklahoma State University*

John P. Maher, M.D., *S.U.N.Y.*

The Department of Health offers degree programs leading to the Master of Education in Health, Master of Science in Health and a concentration in Health Services Administration within the Master of Science in Administration.

The Master of Education enriches academic preparation for teaching in elementary and secondary schools and or first-level employment in the various professions related to health.

The Master of Science is designed primarily to meet individual needs of the graduate student who wishes to pursue graduate work as an aid to upgrading careers in government, industry, research, and related health professions. The M.S. is recommended for persons planning for doctoral study.

The Health Services Administration concentration in the Master of Science in Administration program meets the needs of those persons interested in entering the field of health administration and of those persons presently in health administration interested in upgrading their careers.

COMMUNICATION WITH THE DEPARTMENT

All inquiries and other communications regarding the graduate program in health should be addressed, Chairperson, Department of Health, School of Health Sciences, West Chester University, West Chester, Pa. 19383. Telephone: 215-436-2931.

MASTER OF SCIENCE PROGRAM

Admission to the M.S. Program

Applicants must meet the basic requirements of the University, given under Admissions and must present a baccalaureate degree attained in their anticipated major area of health or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test. Normally, minimum test scores for full matriculation will be 450 Math-450 Verbal for the GRE, or 40 for the MAT.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy, majors in health must complete departmental and concentration core courses with a minimum quality point average for these and all other courses during pre-candidacy of 3.00.

Requirements for the M.S. Degree

1. Satisfactory completion of the M.S. curriculum shown below with an overall average of 3.00.
2. Satisfactory performance on the written and/or oral comprehensive examinations.
3. Oral defense of the thesis.

Registration Policy for Research Credits

Research credits for the M.S. degree are earned in HEA 608 and HEA 610. The thesis proposal (HEA 608) must be formally accepted before the student may register for thesis credits (HEA 610). *Important:* To remain an active degree candidate, the student must continue to register for graduate research credits for at least two of the three sessions that constitute an academic year (Fall Semester, Spring Semester, Regular Summer Session). Students failing to continue to register for two of the three sessions per academic year will be dropped from active degree status, and all grades already earned for research credits will revert to "AU" (audit). If the student later wishes to regain active status, he/she will have to begin the process over again with HEA 608.

Curriculum

1. **Degree Core** 6 s.h.
HEA 520 Scientific Bases for Health (3)
HEA 531 The Community as a Basis for Health (3)
2. **Concentration Core** 6 s.h.
Students must select one of the concentrations below:
A. **SCHOOL HEALTH**
HEA 620 School Health Programs (3)
HEA 622 Curriculum and Instruction in Health Education (3)
B. **PUBLIC HEALTH**
HEA 530 General Environmental Health (3)
HEA 632 Advanced Theory of Health Behavior (3)
C. **ENVIRONMENTAL HEALTH***
HEA 455 Environmental Health Seminar (3)
HEA 530 General Environmental Health (3)
D. **GERONTOLOGY***
HEA 522 Introduction to Gerontology (3)
HEA 519 Geriatrics (3)
3. **Concentration Electives** 9 s.h.-15 s.h.
Selected under advisement
4. **Additional Degree Requirements** 9 s.h.
PSY 501 Introductory Statistics for Behavioral Sciences (3) or
STA 521 Statistics (3) and
HEA 608 Thesis (3)—proposal
HEA 610 Thesis (3)—seminar

Students with inadequate preparation in research methodologies must enroll in HPE 600 as part of their concentration electives.

MASTER OF EDUCATION IN HEALTH

Admission to the M.Ed. Program

In addition to meeting the basic requirements of the University, given under Admission, applicants must present a baccalaureate degree attained in the field of health, or equivalent preparation in a related field.

*The concentrations in environmental health and gerontology require 15 s.h. of electives.

Admission to M.Ed. Degree Candidacy

Within the 15 semester hours of pre-candidacy, the student must complete departmental and concentration core courses with an average of 3.0.

Requirements for the M.Ed. Degree

1. Satisfactory completion of the M.Ed. curriculum shown below, with an overall grade point average of 2.75; 3.0 in the concentration.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of the research project.

Registration Policy for Research Credits

Research credits for the M.Ed. degree are earned in HEA 606 and HEA 607. These credits must be preceded by successful completion of HPE 600 or EDF 500. The research project proposal (HEA 606) must be formally accepted before the student may register for HEA 607. *Important:* To remain an active degree candidate, the student must continue to register for graduate research credits for at least two of the three sessions that constitute an academic year (Fall Semester, Spring Semester, Regular Summer Session). Students failing to continue to register for two of the three sessions per academic year will be dropped from active degree status, and all grades already earned for research credits will revert to "AU" (audit). If the student later wishes to regain active status, he/she will have to begin the process over again with HEA 606.

CURRICULUM

1. **Degree Core** 6 s.h.
HEA 520 Scientific Bases for Health (3)
HEA 531 The Community as a Basis for Health (3)
2. **Concentration Core** 6 s.h.
Students must select one of the concentrations below:
A. **SCHOOL HEALTH**
HEA 620 School Health Programs (3)
HEA 622 Curriculum and Instruction in Health Education
B. **PUBLIC HEALTH**
HEA 530 General Environmental Health (3)
HEA 632 Advanced Theory of Health Behavior (3)
C. **GERONTOLOGY**
HEA 522 Gerontology (3)
HEA 519 Geriatrics (3)
3. **Concentration Electives** 9 s.h.
Selected under advisement
4. **Additional Degree Requirements** 13 s.h.
EDF 510 Educational Foundations (3)
HPE 600 Methods Materials of Research (3) OR
EDF 500 Methods/Materials of Research in Education (3)
PSY 501 Introductory Statistics for Behavioral Sciences (3)
HEA 606 Research Report I (2)
HEA 607 Research Report II (2)

CONCENTRATION IN HEALTH SERVICES ADMINISTRATION—MASTER OF SCIENCE IN ADMINISTRATION

Admission to the M.S. Program

Applicants must meet the basic requirements of the University, given under Admission, and must present a baccalaureate degree

attained in their anticipated major area of health or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy, majors in the health administration concentration must complete 3 of the administration core courses and 2 of the health administration core with a minimum quality point average for these courses during pre-candidacy of 2.75.

Requirements for the M.S. Degree

1. Satisfactory completion of the M.S. in administration curricula shown below with an overall average of 2.75.
2. Satisfactory performance on the written/or oral comprehensive examinations.
3. Successful completion of field research.

Registration Policy of Research Credits

Research credits for the health services concentration are earned in HEA 611. *Important:* Until this field research project is formally completed and accepted, the student, to remain an active degree candidate, must continue to register for HEA 611 for at least two of the three sessions that constitute an academic year (Fall Semester, Spring Semester, Regular Summer Session). Students failing to continue to register for two of the three sessions per academic year will be dropped from active degree status.

CURRICULUM

1. **Administration Core** 18 s.h.
ADM 501 Administration Theory and Environment (3)
ADM 502 Computers for Managers (3)
ADM 503 Accounting for Administration (3)
ADM 504 Communication for Administrators (3)
ADM 505 Organizing Human Resources (3)
ADM 506 Budgeting and Fiscal Management (3)
2. **Health Administration Core** 9 s.h.
HEA 630 Health Care Administration (3)
HEA 631 Health Services Law (3)
HEA 632 Advanced Theories of Health Behavior (3)
3. **Health Electives** 6 s.h.
Select any two from the following:
HEA 520 Scientific Bases for Health (3)
HEA 521 Sociological Bases for Health (3)
HEA 522 Gerontology (3)
HEA 523 Consumer Education (3)
HEA 524 Problems in Industrial Health (3)
HEA 530 General Environmental Health (3)
HEA 531 The Community as a Basis for Health (3)
HEA 532 Institutional Environmental Health (3)
HEA 621 Human Sexuality in a Changing Society (3)
HEA 623 Addictive Diseases (3)
4. **Additional Degree Requirement** 3 s.h.
HEA 611 Field Placement (3)

COURSE DESCRIPTIONS

HEALTH

Symbol: HEA

500 Diseases (3) Provides a contemporary view of disease, prevention, and a more precise understanding of disease processes. Body systems are reviewed and the etiology, pathophysiology, symp-

oms, diagnostic techniques, and treatment methods used in selected diseases are studied. Illnesses most frequently found in our society are explored.

503 Advanced Human Nutrition (3) Selected topics in human nutrition will be extensively examined such as fiber and health, vitamins and minerals in health and disease, methods of weight

control, anorexia nervosa, and bulimia. Emphasis is placed on methods of evaluating nutrition-related literature and claims, and interpretation of data and scientific studies relevant to nutrition.

511 Stress Management Techniques (3) The first half of the course is devoted to the examination of basic stress concepts, the psychophysiology of stress, common stressors and their effect, and

the relationship between stress and disease. The second half consists of a comprehensive review of stress management techniques such as cognitive restructuring, relaxation techniques, and relationship building techniques. Considerable emphasis is placed on personal application and group interaction in the classes.

517 The Aging Consumer (3) An analysis and discussion of the unique consumer needs of the elderly, particularly as they relate to personal health. Topics will include health insurance, costs of health care and delivery, and maintenance of healthful day-to-day living, among others. Strategies for solving these consumer health problems will be presented.

518 Applied Gerontology (3) Design and development of health programs to provide services for the aging population in order to assist them to live as independent members of their community. PREREQ: HEA 517, 519, 522, or permission of instructor.

519 Geriatrics (3) A detailed discussion of physical and mental disabilities and diseases which often accompany the aging process. Methods of treatment for these disorders will also be presented.

520 Scientific Bases for Health (3) The scientific method as it applies to health. An overview of principles of disease causation with an emphasis on health program evaluation.

521 Sociological Bases for Health (3) Past and recent scientific developments in selected sociological health problems. Analysis of research findings in the areas of social and mental health; the place of these findings in the basic content in health education and their practical application through group behavior.

522 Gerontology (3) Information on past and present trends concerning services to the elderly. Discussions on contemporary gerontological problems and factors affecting the treatment of the elderly. This broad based, introductory course is for those interested in the aging population.

523 Consumer Education (3) Consumer-related problems of the individual and society. Consumerism, cost and delivery of health services and the effect on individual and societal health. Consumerism and the law.

524 Problems in Industrial Health (3) An in-depth consideration of the health aspects of work places. Theoretical as well as applied practices will be presented; field trips and a laboratory will be associated with this course.

525 Elementary School Health Education (3) Trends in elementary school health; curricular approaches and emphasis, teaching strategies, motivational techniques, resources, materials, issues, problems and evaluations. PREREQ: Background in elementary education.

526 Life Support Techniques (3) Advanced methods in cardiopulmonary resuscitation and advances in first aid techniques leading to American Heart Association certificate of "Basic Life Support-CPR." Current methods of personal and group injury management.

530 General Environmental Health (3) Methods of promoting health by controlling

environmental factors relating to air, water, wastes, housing, radiation, and industrial hygiene.

531 The Community as a Basis for Health (3) An analysis of the community with its diverse population, and its response to critical and current health problems. Emphasis will be placed on the need for balance between individual and community needs, rights, and responsibilities.

532 Institutional Environmental Health (3) A comprehensive assessment of the environmental health aspects of institutions, including micro-biologic considerations, environmental hygiene, safety, general sanitation, and administration. Health care facilities as well as correctional institutions and schools will be discussed.

533 Water Quality and Health (3) An examination of the physical, chemical, and biological characteristics of natural waters and their significance for human health; methods of water treatment and distribution will also be considered.

535 Health Workshop (1-3) Selected topics current to the interests and needs of professionals serving in the various health and health-related areas will be studied intensely. Topics for each workshop will be announced prior to the first day of each college session.

536 Hazardous Waste Management (3) An assessment of the sources, characteristics, and human health effects of hazardous wastes with emphasis on the design and implementation of control practices.

553 Applied Occupational Safety (3) Practices to reduce safety risks in the work environment through recognition, evaluation, and control of safety hazards.

606 Research Project Seminar I (2) The M.Ed. candidate selects a problem for a research report, reviews the literature, develops procedures, and collects appropriate data. Students are expected to complete the first three chapters of the research report during Seminar I. PREREQ: HPE 600 or EDF 500.

607 Research Project Seminar II (2) M.Ed. candidates are expected to complete their research reports in this seminar (see HEA 606). PREREQ: HEA 606.

608 Thesis Seminar (3) A course for the M.S. candidate, who selects a topic, reviews the literature, develops procedures, and prepares a proposal acceptable to the thesis committee.

609 Independent Study and Special Projects (1-3) Research projects, seminar papers, reports of special conferences, and reading in health. PREREQ: administrative approval.

610 Thesis (3) Undertaken upon completion of HEA 608.

611 Field Placement (3) A project for students in health concentrations. All core coursework should be completed before beginning the project.

620 School Health Problems (3) In-service training in school health problems, using a variety of materials, methods, and resources.

621 Human Sexuality in a Changing Society (3) Problems of sexual organs such as dysfunction. Changing sexual attitudes and behavior of individ-

uals, families, and society. Commercial sex, misinformation, sex and the law, population control. Sex education for home and school.

622 Principles of Curriculum and Instruction for Health Education (3) Alternatives for viewing and reviewing instructional programs. Existing rationales. Conception of curricula. Developing effective curriculum.

623 Addictive Diseases (3) Designed to assist the student and in-service teacher in developing knowledge and insight into the addictive diseases (alcohol, drugs, tobacco). Utilization of resource personnel.

630 Health Care Administration (3) Application of the administration and management techniques acquired in the administrative core to the problems involved in health administration/management. Topics will include federal, state, and local health agencies, health care centers, organization principles, personnel factors, public relations and fiscal management.

631 Health Services Law (3) An analysis of the basic legal concepts and major legal issues of importance to and directly affecting the health services administrator; topics include legal frameworks of health organizations and health practitioners; administrative policy, contracts, consent, patient's rights, legal death, insurance, liability and research.

632 Advanced Theories of Health Behavior (3) An advanced course on current theories in health behavior and the application of these theories to management methods in the health care field. Topics include trends in health behavior, health concerns, analysis of the decision-making process and factors affecting health behavior.

UNDERGRADUATE COURSES FOR GRADUATE CREDIT

The Health Department has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and department chairperson.

410 Mental Health (3) Designed to aid persons in improving their understanding of themselves and others. Emphasis on ways to recognize mental health problems.

435 Health Workshop (1-6) Special workshops on contemporary health problems and issues. Topics announced at time of offering.

451 Toxic Substances (3) An investigation of the health problems caused by toxic substances primarily in the workplace and also in the general environment. Industrial hygiene methods of using technology to evaluate and control toxic substances will be discussed and demonstrated.

452 Industrial Hygiene (3) A study of the anticipation, recognition, evaluation, and control of health hazards in the work environment.

455 Environmental Health Seminar (3) In-depth investigation and discussion of topics of particular concern or significance to the environmental health field. Topics will be varied from year to year.

History

Dr. Stuart, *Chairperson*

Dr. Schalck, *Coordinator of Graduate Studies*

PROFESSORS

H. James Burgwyn, Ph.D., *University of Pittsburgh*
 Florence Joseph Crowley, Ph.D., *University of Florida*
 Claude R. Foster, Ph.D., *University of Pennsylvania*
 Frank Fox, Ph.D., *University of Delaware*
 Clifford H. Harding, Ph.D., *New York University*
 Patricia C. Johnson, Ph.D., *University of Rochester*
 Donn C. Riley, Ph.D., *St. Louis University*
 Harry G. Schalck, Ph.D., *Clark University*
 Anne Sessa, Ph.D., *University of Delaware*
 Irene G. Shur, Ed.D., *University of Pennsylvania*
 Norbert C. Seldon, Ph.D., *University of Delaware*
 Charles H. Stuart, Ph.D., *Boston University*
 Jane B. Swan, Ph.D., *University of Pennsylvania*
 John J. Turner, Jr., Ph.D., *Columbia University*
 Richard J. Webster, Ph.D., *University of Pennsylvania*
 Robert J. Young, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

Raymond A. Doyle, M.S., *West Chester University*
 Thomas J. Heston, Ph.D., *Case Western Reserve University*
 W. Bennett Peters, Ph.D., *University of California at Santa Barbara*

The Department of History offers two degrees: the Master of Arts in history; and, in cooperation with the School of Education, the Master of Education in social science with a concentration in history.

The Master of Arts degree in history provides a sound foundation for study leading to the doctorate in history as well as a background of knowledge for teachers in secondary schools and institutions of higher learning and for persons employed in industry and government. Study for the degree also enriches the cultural background of students and helps them to evaluate present events in light of the past.

The M.A. in history may be earned by completing either a thesis or non-thesis program. The candidate in the thesis program must pass a reading-proficiency test in either French or German. The candidate, with the department chairperson's approval, may substitute another language or may demonstrate competency in statistics. In the non-thesis program, the candidate does not fulfill the language requirement but takes two seminars and presents a research paper in each. Students in the Master of Arts program in history (thesis or non-thesis option) are advised by the Department of History.

The Master of Education in social science (history concentration) is designed to provide in-service teachers with additional professional education courses and an opportunity to enlarge their understanding of the historical past. Those who select history as their concentration in this program are advised by the Department of History.

In both programs the Graduate Record Examinations (morning and afternoon) are required for admission to degree candidacy, which should occur upon completion of 12 to 18 semester hours of graduate work.

Degree candidates must achieve at least a raw score of 1000 in the combined verbal and advanced history portions of the Graduate Record Examinations or a score of no less than the 40th percentile in the advanced history portion.

The Department of History office is located in 506 Main Hall, telephone (215) 436-2201; the graduate coordinator's office is 216 Main Hall, telephone (215) 436-2345.

MASTER OF ARTS IN HISTORY

30 Semester Hours

THESIS OPTION

- | | |
|--|---------|
| 1. Major area of concentration (American or European) (must include two seminars) | 12 s.h. |
| 2. Minor area of concentration (either the area not chosen above or the Third World) | 6 s.h. |
| 3. HIS 500 Methods and Materials of Research | 3 s.h. |
| 4. HIS 691 Thesis | 6 s.h. |
| 5. Elective | 3 s.h. |

NON-THESIS OPTION

- | | |
|--|---------|
| 1. Major area of concentration (American or European) (must include two seminars) | 18 s.h. |
| 2. Minor area of concentration (either the area not chosen above or the Third World) | 9 s.h. |
| 3. HIS 500 Methods and Materials of Research | 3 s.h. |

MASTER OF EDUCATION IN SOCIAL SCIENCE

Concentration: History

34 Semester Hours

- | | |
|--|------------|
| 1. Professional education requirements (See page 37) | 12 s.h. |
| 2. History courses (under advisement) | 15-18 s.h. |
| 3. HIS 500 Methods and Materials of Research | 3 s.h. |
| 4. HIS 650, 651, or 652 Seminar | 3 s.h. |
| 5. Electives (Professional education or academic) | 0-3 s.h. |

The Department of History has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and or the department's chairperson: HIS 406, 420, 421, 422, 423, 425, 426, 427, 435, 447, 451, 455, 462, 474.

COURSE DESCRIPTIONS

See also Social Science (SSC) following History

Symbol: HIS

500 Methods and Materials of Research in History (3)

Basic techniques and procedures in research; major types of research and methods for locating, evaluating, and interpreting evidence. The student develops a tentative outline, bibliography, and summary of an investigative procedure. Required of all degree-program students.

501 Studies in the History and Culture of South Asia (3) The Indian sub-continent's dominant political, cultural, and economic institutions. Features which contribute to an understanding of modern India and Pakistan.

505 Studies in the History and Culture of East Asia (3) The traditional basis for modern Chinese, Japanese, and Korean society. The interaction between European and Asian cultures and resulting changes in East Asia.

509 Contemporary History of the Middle East (3) Recent history of major Middle Eastern societies; Iran and the oil situation; Israel and the Palestine question; conflicting cultures.

510 History of Pennsylvania (3) The founding and development of Pennsylvania from its colonial beginnings to the present, with emphasis on the relation of the past to the present.

511 Studies in the History and Culture of Emerging Africa (3) Emergence of modern African nationalism against the background of traditional African society and the legacy of European colonialism.

512 Independent Black Africa (3) The post-war experience of Sub-Saharan Africa viewed in the light of the end of European colonial administration and the growth of an independent African society.

515 The Cultural and Intellectual History of Latin America (3) Pre-Columbian art and thought, scholasticism, mercantilism, the Great Debate, Baroque architecture, Enlightenment, conservatism, liberalism, Romanticism, Modernism, Positivism, Jose Enrique Rodo, Aprismo, Mexican muralists, novel of social protest, existentialism, and music. Lineaments of the Latin-American mind.

516 Modern Mexico (3) Mexico during the 19th- and 20th-centuries; stress upon the dramatic transformation of Mexico from backwardness to modernity in the short period of a century and a half.

530 Problems in Medieval Civilization (3) Rise and fall of the Byzantine Empire, conquests of the Arabs and Turks, the crusades for the recovery of the Holy Land; the religious orders and the universal aspirations of the Papacy.

531 The Renaissance (3) Political, social, and cultural transitions in Italy and Northern Europe, 1350-1550.

532 The Reformation (3) Major and minor Protestant leaders and their movements; effects on the evolving nation-states; the Church of Rome's response; Wars of Religion and Treaty of Westphalia; the Scientific Revolution.

533 Dynastic Europe: 1648-1789 (3) The absolute dynastic monarchy as best exemplified by France, Prussia and Russia, the middle class challenge as typified by the English experience; the

Enlightenment and the New Science; capitalism; colonialism, and wars of empire.

534 The French Revolution and the Napoleonic Era: 1789-1815 (3) Causes of the French Revolution, failure of absolutism, Reign of Terror, the Directory; rise of Napoleon Bonaparte and his contribution to the Revolution; the Empire—its rise and collapse; Congress of Vienna.

535 Nationalism and Democracy: 1815-1914 (3) Aftermath and effect of the French Revolutionary era; events brought on by the growth of nationalism and democracy; development of the industrial revolution. Roots of the First World War.

536 Europe Since 1914 (3) Twentieth century Europe, with emphasis on causes of World War I, Europe between World War I and World War II; problems of contemporary Europe.

540 The Evolution of Modern Russia (3) A cultural approach to the historical development of Russia from the foundation of Kiev to the Revolution of 1917. Emphasis is on Russia's political and aesthetic uniqueness.

541 Tudor and Stuart England (3) Social, cultural, religious, political, and economic developments during the Tudor and Stuart reigns; building a strong Tudor monarchy; the English Reformation; Stuart Absolutism, Puritan Revolution, Civil War and the Commonwealth; the beginning of Empire; the Restoration, Glorious Revolution, and growth of English constitutionalism.

550 Colonial America: 1607-1763 (3) Development of the thirteen colonies of Anglo-America from their settlement to mid-18th century. Emphasis on a conceptual analysis of specific events and problems.

551 Revolutionary America: 1763-1789 (3) American development from the mid-18th century to the framing of the Constitution, with emphasis on the causes of the American Revolution and the evolution of American institutions and ideas throughout the period.

533 The Rise of the New Nation: 1789-1850 (3) A historiographical approach involving interpretations of the foundations and development of the Federalist Party, emergence of Jeffersonian Democracy, evolution of Jacksonian Democracy, and events of the Middle Period leading to the decade of controversy.

554 Civil War and Reconstruction: 1850-1877 (3) The War and its aftermath as the great watershed of United States national history. Emphasis on the conflicting interpretations of the causes, nature, and effects of the Civil War.

555 Emergence of Modern America: 1876-1923 (3) Rise of industry, labor, immigration, and new cultural patterns; emergence of new political alignments, rise of imperialism, development of liberalism and reform; America's struggle for neutrality and her participation in World War I.

556 America Since 1919 (3) The impact of urbanization and industrialization upon society, politics, and economics; the problems of wars—declared and undeclared—and the various policies for peace.

557 Problems in American Constitutional Development (3) Selected problems in the development of American constitutional government. The progressive adaptation of the law to a changing social and economic order. Conflicts such as

nationalism versus states' rights and vested rights versus police power.

558 Recent American Diplomatic History (3) American foreign policy in Europe, Asia, Latin America and the Middle East from 1945 to the present. Objectives sought by the United States and the political, military, economic, and social policies pursued; role of the United States in the future of underdeveloped countries.

559 American Urban History (3) Research methods and approaches for studying the history of cities in America. Emphasis on quantitative analysis, including studies of urban population, social mobility, and voting patterns.

560 American Labor Since 1865 (3) American laborers and labor organizations in the past hundred years; industrialization, immigration, and labor; women, children, and minorities in labor organizations; political parties, radical groups, and violence as factors in labor history; economic conditions and labor; Big Labor.

561 The Indian in America's Past (3) The dispossession of the American Indian, land seizures, wars, and treaties, cultural contact, customs, mores, economic and religious life of the Indian; assimilation and preservation of Indian culture.

562 Technology and American Life (3) Promises and practices of American life in response to the interaction of American forms, values and scientific-technological change from the colonial period to the present.

650 Seminar in American History (3) Selected problems in American history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in American history.

651 Seminar in European History (3) Selected problems in European history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in European history.

652 Seminar in History of the Non-Western World (3) Selected problems in non-western world history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in non-western world history.

660 Field Studies in History (3-6) A fully supervised learning experience, usually a tour, designed to expose students to the culture, artifacts, and research facilities of a given country or area.

690 Independent Studies in History (1-3) Research projects, reports, and readings in history. PREREQ: Approval of department chairperson.

691 Thesis (3-6)

SOCIAL SCIENCE

SSC 502 Methods and Materials for Teaching Social Studies (3-6) Current practices and procedures; organization and planning; the use of classroom, library, and curriculum materials; testing, measurements, and evaluation; bibliographical sources for both teachers and students.

SSC 580 Ethnic Cultures Institute (3) An interdisciplinary offering, the institute considers the contributions of ethnic groups to the culture of the United States. Designed primarily for teachers, community action personnel, and students who wish to increase knowledge and skills for developing meaningful intergroup relationships and improving classroom instruction. Educators and community leaders take part

Instructional Media

Dr. Spiecker, *Chairperson and Coordinator of Graduate Studies*

PROFESSORS

Joseph M. Spiecker, Ed.D., *Nova University*

Richard L. Strayer, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

David L. Redmond, M.S., *Syracuse University*

ASSISTANT PROFESSOR

Russell E. Reis, M.Ed., *West Chester University*

The Department of Instructional Media offers three programs in educational media.

MASTER OF EDUCATION

This degree is offered to candidates who possess an Instructional Level I or Instructional Level II certificate and prepares them for positions as instructional media coordinators in elementary and secondary schools and for instructional and administrative positions in colleges.

MASTER OF SCIENCE

This is a program designed for the many fields outside education where highly skilled personnel in instructional media are in growing demand. These fields encompass business, industry, religious organizations, and government. Unlike the M.Ed. program, the M.S. program does not require an undergraduate background in teaching, nor does it lead to certification.

INSTRUCTIONAL MEDIA SPECIALIST CERTIFICATION

Certification, which may be earned by completing the Master of Education degree program, may also be achieved with the completion of 24 credits in instructional media in a non-degree program. The certificate is valid for obtaining positions in instructional media in educational institutions.

MASTER OF EDUCATION IN INSTRUCTIONAL MEDIA PROGRAM

Students admitted to the master's degree program are required to submit scores for the Graduate Record Examination Aptitude Test and/or the Miller Analogies Test during their first session (fall, spring, or summer) of enrollment.

Admission to Degree Candidacy

Upon completion of 15 semester hours, application for degree candidacy may be made by students who meet the following requirements:

1. A 3.00 average in courses in educational media.
2. A 2.75 average in over-all graduate work.
3. Successful performance on the Graduate Record Examination and/or the Miller Analogies Test.
4. Satisfactory performance on a proficiency examination in the field of educational media after completion of 12 semester hours.

The Comprehensive Examination

Admission to the comprehensive examination is gained upon admission to degree candidacy, completion of all required courses and 28 semester hours of course work.

Degree Requirement

The candidate must perform satisfactorily on the comprehensive examination and satisfactorily complete the curriculum shown below. Total curriculum involves 36 semester hours.

Required Courses

EDF 500 and EDF 510—6 semester hours.

Area of Concentration Requirements

EDM 502, 503, 519, 523, 560, 590—18 semester hours.

Area of Concentration Electives

6 semester hours chosen under advisement from offerings in Instructional Media.

Free Electives

0-3 semester hours (under advisement).

MASTER OF SCIENCE IN INSTRUCTIONAL MEDIA PROGRAM

Students admitted to this program are required to submit a score for the Miller Analogies Test during the first session of enrollment.

Admission to Degree Candidacy

Before completion of 15 semester hours, application for degree candidacy is made by students who meet the following requirements:

1. A 3.00 average in course work.
2. Successful performance on the Miller Analogies Test.
3. Satisfactory performance on a proficiency examination in educational media after completion of 12 semester hours.
4. Successful completion of a project in the area of concentration.

The Comprehensive Examination

Admission to the comprehensive examination is gained upon admission to degree candidacy and completion of 28 semester hours of work including all required courses.

The candidate must perform satisfactorily on the comprehensive examination and satisfactorily complete the curriculum shown below. Total curriculum involves 34 semester hours.

Required Courses

EDM 502, 503, 523, 560, 563, 591—18 semester hours.

Concentration Area

Each student must pursue a concentration of 9 semester hours in one of the four following areas and at least 3 semester hours in the remaining areas.

- A. Photography. EDM 525, 526, 528.
- B. Cinematography. Three courses chosen from EDM 505, 529, 530, 531.
- C. Television. EDM 533, 534, 535.
- D. Research in Communications. EDF 500, RES 520, EDM 591, EDM 595.

Electives

3 semester hours chosen under advisement. The candidate is required to show competence in or to take a course in each of the above three areas not chosen for his concentration.

INSTRUCTIONAL MEDIA SPECIALIST CERTIFICATION PROGRAM

24 Semester Hours

In order to obtain this certificate the student must:

1. Hold a Pennsylvania certificate valid for teaching in the elementary or secondary schools.
2. Complete the state-approved curriculum, which consists of EDM 502, 503, 519, 523, 560, 590, and 6 semester hours of electives taken under advisement.
3. Achieve an overall average of 2.75 in the program.
4. Perform successfully on a final proficiency examination.

COURSE DESCRIPTIONS

INSTRUCTIONAL MEDIA

Symbol: EDM

501 Orientation to Instructional Media (3)

Survey of modern educational media with opportunities for laboratory activities.

502 Selection and Effective Utilization of Instructional Media (3)

Evaluates diverse types of educational media and explores means of integrating these media into the instructional situation.

503 Developing Mediated Individualized Programs (3)

A workshop stressing the development of individualized, mediated instructional packages using the systems approach.

505 Theory of Motion Picture Production (3)

History and development of the motion picture, with emphasis on educational motion pictures. Cinematographic techniques; the impact of 35 mm., 16 mm., and 8 mm.; the single-concept instructional film. An evaluation of diverse types of films as they apply to types of learning.

508 Instructional Materials in the Elementary School Curriculum (3)

Practice in techniques of using and evaluating communications media in the classroom. Correlating audio-visual materials and techniques with the elementary program.

513 Production of Multi-Media Programs (3)

Lectures, discussions, demonstrations, field trips, and lab sessions. Each student will prepare an independent learning package or module for an assigned topic and target population. PREREQ: EDM 511.

519 Library Science (3) Organization and administration of libraries, with emphasis on instructional materials. Selecting, cataloging, and evaluating instructional materials.

523 Design of Production of Visual Materials (3)

Course will explore the areas of design as they relate to the production of visual instructional materials to be utilized as an integral part of the curriculum. The phases of perception, communication, and learning theories are covered as they involve a teaching approach with the subject matter specialist and the educational media specialist in determining advantages, limitations and use of various visual educational media.

524 Advanced Production of Visual Materials (3)

Design and production of projectuals using technamation, color inhibition, photo-copy, and advanced diazo techniques. Investigation of commercial production of transparencies. PREREQ: EDM 523.

525 Basic Photography (3) A basic laboratory course in the taking and processing of still pictures.

526 Intermediate Photography (3)

A workshop course for those who have had a basic photography course or previous photographic experience. This course will stress an aesthetic creative approach to black and white and color photography with small format cameras and will involve advanced techniques of exposure, lighting, composition, macrophotography and film and print processing. PREREQ: 525.

528 Advanced Still Photography (3) Lecture and laboratory experiences in the use of large-format cameras. PREREQ: EDM 525.

529 Production of 8 mm. Motion Pictures (3)

Prepares teachers to produce and/or guide students in the production of 8 mm. films.

530 Cinematography I (3) Scripting and shooting 16 mm. motion pictures.

531 Cinematography II (3) Editing and sound recording on 16 mm. films. PREREQ: EDM 530.

533 Basic TV Production I (3) Development of educational television and the instructional use of commercial, educational, and closed-circuit television in the classroom.

534 Instructional Television Production II (3)

Planning, writing, producing, and evaluating instructional television productions. PREREQ: EDM 533.

535 Instructional Television Production III (3)

Production of telecasts in selected subject areas with emphasis on videotape recording. PREREQ: EDM 534.

560 Organization and Administration of Media Programs (3)

The function of the school's educational media program; selection and evaluation of materials and equipment; unit costs; problems of developing and maintaining an efficient operation. PREREQ: 12 graduate credits in educational media.

563 Field Study of Media Programs (3) A scheduled group or individualized tour, foreign or domestic, in which students investigate notable installations or projects in educational media.

565 Seminar in Mass Media (2) Explores current problems in the use of instructional media. PREREQ: 12 graduate credits in educational media.

590 Internship Instructional Media (2-6) Practicum in supervising and implementing instructional services. PREREQ: 18 credits in educational media.

591 Seminar in Research in Communications (2-6) Basic elements of communication theory, applied to audio-visual education. Research in audio-visual communication is analyzed.

595 Independent Studies in Instructional Media (1-3)

598 Workshop in Instructional Media (3)

Leadership for Women

Dr. Rengert, *Program Concentration Advisor*

Dr. Milne, *Program Coordinator*

Leadership for women is a concentration in the Master of Science in Administration program. It addresses organizational power which sometimes is inequitable for men and women of equal training and talent. It recognizes that women who seek to advance to leadership positions often become change agents within the organization—and sometimes within their families and community as well.

This concentration within the master's program consists of four required and two elective courses. They involve reading and study of feminist perspectives on initiating, responding to, and managing change. They examine theories and practices which clarify values. They contain models and strategies for resolving the conflicts and logistical dilemmas

vital to a successful administrative career that differs from conventional sex role ascription of status and power.

Courses may be taken individually. For the full concentration the following four courses are required:

- ADM 530 Women in Leadership: Critical Issues
- ADM 531 Management of Leadership: Laboratory Course
- ADM 533 The Woman Executive: Research Seminar
- PSY 565 Psychology of Women

The student chooses two electives from among:

- ADM 539 Research Project
- PSC 515 Women in Politics
- ECO 503 Economic Role of Women
- SWO 521 Social Work with Women in Transition
- PSC 552 Civil Rights and Civil Liberties
- GEO 530 Demographic Analysis

Other electives, including an internship, are possible under advisement

COURSE DESCRIPTIONS

ADMINISTRATION

Symbol: ADM

530 Women in Leadership: Critical Issues (3)

Survey of the literature which defines and discusses critical issues for the woman leader. Some issues center around lifestyle choices and conflicts (loneliness, family pressure) and others around

organizational barriers and alternative means to overcome them

531 Management of Leadership: Laboratory Course (3)

The study and practice of alternative leadership modes. The course uses workshop techniques to teach assertiveness, speech and other communication skills, and problem solving strategies. One weekend workshop, offered 8-10 weeks into the semester, is mandatory

533 The Woman Executive: Research Seminar

(3) A seminar which requires each student to complete an original project on the goals, problems, choices, or successes of women in middle or upper-level management positions. The use of case studies, surveys, oral history, and other research techniques will be explored

539 Research Project (3) A project to be developed independently by student working with specific instructor.

612 (3-6) Internship

Linguistics

(Interdisciplinary Area)

Dr. Falgie and Dr. Smith, *Coordinators*

LINGUISTICS GROUP

Diane O. Casagrande (*Speech and Theatre*)

W. Stephen Croddy (*Philosophy*)

Joseph Falgie, Jr. (*English*)

John T. Kelly (*English*)

Willie E. Page, Jr. (*English*)

Philip D. Smith, Jr. (*Foreign Languages*)

Paul Stoller (*Anthropology-Sociology*)

Although West Chester presently offers no degree in linguistics, students interested in developing a concentration in this area may elect courses from the following list. For additional information consult one of the coordinators.

COURSE DESCRIPTIONS

LINGUISTICS

Symbol: LIN

501 Introduction to Linguistics (3) Basic concepts of language description, classification, change, reconstruction, dialectology and sociolinguistics.

503 Phonology and Morphology (3) Phonetics, phonemics, morphophonemics, and the morphological composition of words.

504 Syntax (3) A comparative study of the various modern approaches to the study of grammar. PREREQ: LIN 501 or ENG 575.

505 Transformational Grammar (3) Basic concepts of transformational theory and their

application in teaching. PREREQ: LIN 501 or ENG 575.

506 Meaning in Language (also PHI 506) (3) See PHI 506.

512 Descriptive Linguistics (3) Analysis of the phonemic, morphological, and syntactic features of typologically divergent languages. Procedures for eliciting linguistically relevant data about a language from a native speaker. PREREQ: LIN 503.

515 General Semantics (also SPC 515) (3) See SPC 515.

523 Philosophy of Language (also PHI 523) (3) See PHI 523.

540 Sociolinguistics (also SOC 540) (3) The study of language in its social context: the ethnography of communication; language and society,

social classes, ethnic groups, politics, sex, and education. PREREQ: LIN 501 or permission of instructor.

555 Psycholinguistics (also PSY 555) (3) An introduction to the study of the relationships between language and thought. Models of language, communication theory, and learning theory. Major emphasis on natural language development and bilingualism.

580 Language and Culture (also ANT 580) (3) Language as an aspect of culture; linguistic-perceptual-cognitive categories; social and psychological aspects of language. PREREQ: LIN 501 or permission of instructor.

590 Independent Study (1-3)

Mathematical Sciences

Dr. Weaver, *Chairperson*

Dr. Mandelbaum, *Coordinator of Graduate Studies*

PROFESSORS

Richard G. Branton, Ph.D., *University of Pennsylvania*

James D. Fabrey, Ph.D., *Massachusetts Institute of Technology*

Albert E. Filano, Ph.D., *Pennsylvania State University*

Frank Grosshans, Ph.D., *University of Chicago*

Sebastian S. Koh, Ph.D., *University of California*

James E. L'Heureux, Ph.D., *Louisiana State University*

Eli M. Mandelbaum, Ph.D., *University of Pennsylvania*

Michael Montemuro, Ed.D., *Temple University*

John W. Weaver, Ph.D., *John Hopkins University*

ASSOCIATE PROFESSORS

John J. Kerrigan, D.Ed., *Temple University*

Elaine R. Milito, Ph.D., *Pennsylvania State University*

Ronnie L. Morgan, Ph.D., *University of Missouri*

Paul Wolfson, Ph.D., *University of Chicago*

ASSISTANT PROFESSOR

Francoise E. Schremmer, Ph.D., *University of Pennsylvania*

The Department of Mathematical Sciences offers the Master of Arts degree with options in pure mathematics, mathematics education, and applied computer science.

The first option is for students interested in furthering their mathematical background. It provides the foundation for continued work in mathematics leading to the Ph.D. degree in pure mathematics.

The second option is primarily directed to teachers of mathematics who wish to strengthen their background in mathematics and mathematics education; in addition it provides the foundation for the Doctor of Arts or the Ph.D. degree in mathematics education.

The last option is primarily for those with backgrounds in mathematics or science, preparing them for computer technology and its applications. Students with other backgrounds may tailor their programs to satisfy their particular needs and professional goals.

The department also offers the Master of Science in computer science. It has two primary options: a research program for students with an undergraduate degree in computer science, and a professional program for students with an undergraduate degree in areas other than computer science.

The department also cooperates with the School of Education in offering the Master of Education degree in mathematics.

ADMISSION TO THE M.A. PROGRAM

In addition to meeting the basic admission requirements of the University, applicants—prior to enrollment—must schedule an interview with the department chairperson. Applicants must present a minimum of 30 semester hours of mathematics including a full treatment of calculus and at least one advanced undergraduate course in modern algebra and one in advanced calculus. Deficiencies in these areas may be removed by successfully completing MAT 512—Modern Algebra and/or MAT 541—Advanced Calculus. At the discretion of the department, the Graduate Record Examination may be required.

ADMISSION TO THE M.S. PROGRAM

In addition to meeting the basic admission requirements of the University—applicants must have completed course work in computer science and mathematics, including CSC 505-508, 561, three semesters of applied calculus and one semester of statistics. Deficiencies in these areas may be removed by appropriate courses approved by the program advisor.

ADMISSION TO THE M.ED. PROGRAM

In addition to meeting the basic admission requirements of the University, applicants—prior to enrollment—must schedule an interview with the department chairperson. Applicants must present a minimum of 24 semester hours of mathematics including a full treatment of calculus and at least one advanced undergraduate course in modern algebra or advanced calculus. Deficiencies in these areas may be removed by successfully completing MAT 512—Modern Algebra or MAT 541—Advanced Calculus.

REQUIREMENTS FOR THE M.A., M.S., AND M.ED. DEGREES

In addition to completing the course requirements shown below, candidates for either degree must pass a comprehensive oral examination.

MASTER OF ARTS IN MATHEMATICS PROGRAM

30 Semester Hours

Core Courses

Candidates in all options are required to take 9 semester hours including MAT 515, 545, and either MAT 575 or an approved course in statistics or applied mathematics.

Required Courses 12 semester hours

- A. Pure Mathematics Option: Mat 516, 535, 546, 575 (or 576 if 575 is selected for Core).
- B. Mathematics Education Option: MTE 504, 507, 508, and one of the following: MTE 505, 551, or 552.
- C. Applied Computer Science Option: as specified by student's graduate committee chairperson depending on student's background and experience.

Electives 9 semester hours

Chosen under advisement from the course offerings below bearing the prefix MAT or STA except MAT 503, 512, and 541.

Modifications in this program may be made with the approval of the department chairperson.

MASTER OF SCIENCE IN COMPUTER SCIENCE PROGRAM

30 Semester Hours.

Core Courses

12 semester hours

CSC 525, 590, 599 (2 semesters — 2 semester hours each).

Required Courses

12 semester hours

Chosen under advisement from the following: CSC 521, 531, 541, 543, 571, 581, 610, 620.

Electives

6 semester hours

Chosen with the approval of advisor from course offerings bearing the prefix CSC, MAT, or STA, or involving the application of computer science to another discipline, such as psychology, economics, physics, etc.

MASTER OF EDUCATION IN MATHEMATICS PROGRAM

34 Semester Hours

The candidate must satisfy the Professional Education Requirements as outlined on page 37.

In the area of concentration (20-22 semester hours) MAT 515, 545, MTE 507, and either MTE 508 or 509 are required. Electives (8-10 semester hours) are chosen under advisement from the course offerings below bearing the prefix MAT or STA.

Modification in the area of concentration may be made with the approval of the department chairperson.

COURSE DESCRIPTIONS**COMPUTER SCIENCE**

Symbol: CSC

501 Introduction to Computers (3) Programming and use of the computer for the student's various needs. The student writes a number of programs to accomplish a variety of computing tasks, and is introduced to a variety of software packages such as text processing and spread sheet.

502 Computers for Managers (3) Management techniques for the evaluation, acquisition, and management of computer personnel and technology. (For non-majors.)

505 Introduction to Computer Science (3) Introduction to the art and science of computing and its applications. Topics covered are elementary data structures, structures programming techniques, algorithm development, error analysis, and file manipulation. A final substantive programming project is required of each student. A structured programming language is used. PREREQ: Two years of high school algebra

506 Applied Software (3) Techniques of program design, documentation, and implementation. Advanced features of the structured language of CSC 505 are studied and used. Emphasis is placed on data storage, data representation, and file structures.

507 Data Structures (3) Data structures are presented using the structured language of CSC 505. Topics include stacks, queues, linked lists, trees, sorting, and searching. PREREQ: CSC 506. Offered in fall and spring.

508 Computer Organization (3) Study of the architecture of a computer system and its language. Topics include array processing, stack handling, subroutines, parameter passing, interrupts, I/O processing, arithmetic operations, bit manipulation, and memory organization. PREREQ: CSC 507 or permission of instructor. Offered in spring, fall, and summer

510 Computer Programming and Numerical Methods (3) Algorithmic methods are used to program the computer to solve numerical problems from science and engineering. PREREQ: Some high-level programming and one year of calculus.

515 Introduction to Computer Programming (3) The art and science of computing are introduced with emphasis on structured programming. Topics include looping, branching, arrays, and program development. (For non-majors.) PREREQ: One year of high school algebra.

521 Data Base Management Systems (3) Detailed study of the characteristics of generalized data management systems, including a survey of some of the systems in widespread use. Emphasis is placed on techniques for improving the interface between a manager and the information he or she needs to make decisions through easy-to-use generalized reporting systems. PREREQ: CSC 507 and 508 or equivalent. Offered in fall and spring.

525 Systems Design (4) General techniques of systems design are presented and related to an actual case study from local business and industry. PREREQ: Degree candidacy.

531 Operating Systems (3) Operating systems and their characteristics are studied. Maintenance of a complex operating system with emphasis on the important trade-offs made in tuning the system. Details of memory and file management, system accounting, and other user-related services are emphasized. PREREQ: CSC 507, 508 and 561 or equivalent. Offered in fall

535 On-Line Computing (3) Characteristics of data communication equipment. Design, implementation, and modification of information systems in an on-line environment are emphasized. File management systems and data structures appropriate to real-time computing with particular emphasis on back-up and recovery techniques are stressed. PREREQ: CSC 508 or equivalent. Offered in spring.

541 Compiler Construction (3) Translation, loading, and execution of a higher-level language. Syntax analysis of simple expressions and statements. Organization of a compiler, including compile-time and run-time symbol tables, error diagnostics, and object code optimization. Design and implementation of a simple compiler. PREREQ: CSC 507 and 508 or equivalent. Offered in spring

543 Formal Languages (3) A study of the various types of automata and their associated languages. Designed to give a student an understanding and appreciation of the production system for languages and their relationship to automata. PREREQ: CSC 508 or equivalent. Offered in fall — even years.

550 Computers in Education (3) An introductory computer literacy course. Students will become familiar with microcomputers in a "hands on" setting. After learning to program in BASIC students will create computer based activities for use in their own professional settings.

561 Simulation (3) Computer simulation utilizing logical, numerical, and Monte Carlo modelling to represent systems. Use of special languages to simulate actual systems. PREREQ: CSC 505 or 515 (or equivalent), calculus, linear algebra and statistics. Offered in spring, summer, and fall.

571 Computer Graphics (3) Construction and manipulation of prototypes for graphical display purposes. PREREQ: CSC 507 (or equivalent) and calculus and linear algebra. Offered in spring.

581 Artificial Intelligence (3) Thorough analysis and study of the LISP language in its application to non-numeric problems and symbol manipulations. Application to gaming, scene analysis and pattern recognition, linguistic analysis and semantic representation, image analysis and solution spaces, problem solving and attention control. Each student is required to take one substantial problem and solve it using the LISP language and the techniques of artificial intelligence. PREREQ:

CSC 508 or equivalent. Offered in fall—odd years.

590 Software Engineering (4) Programming teams design and implement a realistic, fairly complex, software system. Design techniques, analysis, programming style, testing, and documentation will be stressed. PREREQ: Degree candidacy.

595 Topics in Computer Science (3) Topics announced at time of offering. PREREQ: consent of instructor. Offered as needed.

599 Journal Seminar (2) Student, in conjunction with professor, selects topics to be studied in depth via literature search, reading or pertinent articles, and speaking in the seminar. PREREQ: CSC 525 or 590.

610 Thesis (3-6) An expository thesis based on intensive study of a subject of contemporary interest. PREREQ: Approval and supervision by an appropriate faculty member.

620 Research Thesis (3-6) A research thesis presenting new and significant contributions to the field. It is normally completed by former undergraduate majors in computer science. PREREQ: Approval and supervision by an appropriate faculty member.

MATHEMATICS

Symbol: MAT

503 History of Mathematics (3) Development of mathematics from prehistoric time to present. Emphasis on changes in the mainstreams of mathematical thought through the ages.

506 Fundamentals of Mathematics for Physics (3) A critical examination of mathematics from the viewpoint of its physical applications.

512 Modern Algebra (3) For students with background deficiencies in algebra. Abstract mathematical systems studied include groups, rings, and fields. Offered in summer.

513 Linear Algebra (3) Vectors, vector spaces, determinants, linear transformations, matrices, bilinear and quadratic forms. PREREQ: MAT 512 or equivalent.

514 Theory of Numbers (3) Elementary number theory and selected topics in analytic number theory.

515 Algebra I (3) Elements of abstract algebra. Groups, commutative ring theory, modules, and associative algebras over commutative rings. PREREQ: MAT 512 or equivalent. Offered in fall—odd years.

516 Algebra II (3) A continuation of MAT 515. Vector spaces, representation theory, and Galois theory. PREREQ: MAT 515. Offered in spring—even years.

517 Topics in Algebra (3) Advanced algebraic theories. Homological algebra, algebraic geometry, and algebraic number theory. PREREQ: MAT 516.

532 Modern Geometry (3) Foundations of geometry. Axiomatics, and the structure of a geometric system. Euclidean geometry from the standpoint of the Euclid and Hilbert postulates. Certain topics in projective and hyperbolic geometry.

533 Projective Geometry (3) An algebraic approach to projective geometry. Invariant theory, projective spaces, conics and quadratic forms, subgeometries of real projective geometry.

535 Topology (3) Filters, nets, separation axioms, compactness, connectedness, uniform spaces.

536 Algebraic Topology (3) Algebraic topological invariants. Homotopy theory; simplicial, singular and Čech homology; cohomology theories. PREREQ: MAT 516, MAT 535.

541 Advanced Calculus (3) For students with background deficiencies in analysis. Ordinary and uniform limits; sequences of functions; the Riemann integral. Offered in summer.

543 Topics in Differential Equations (3) Advanced topics. Existence and uniqueness theorems, stability theory, singular points, regular singular points. Sturm separation theorem and the "method of Liapunov."

545 Real Analysis I (3) A rigorous study of real valued functions of real variables. PREREQ: MAT 541 or equivalent. Offered in fall—even years.

546 Real Analysis II (3) Continuation of MAT 545. PREREQ: MAT 545. Offered in spring—odd years.

570 Mathematical Models in the Life, Physical, and Social Sciences (3) Techniques and rationales of model building. Applications to the life, physical, and social sciences.

572 Proseminar (3) Seminar in generating and solving problems in mathematics.

575 Complex Analysis I (3) A rigorous study of complex valued functions of complex variables.

576 Complex Analysis II (3) Continuation of MAT 575. PREREQ: MAT 575.

581 Methods of Applied Mathematics (3) Vector analysis, complex analysis. Fourier analysis and Sturm-Liouville Theory.

583 Operations Research and Applied Mathematics (3) Topics in applied mathematics. Linear and dynamic programming, game theory, extreme value problems, inventory, allocation, and queuing and search problems.

599 Independent Study (1-3) Offered as needed.

610 Thesis (3-6) Offered as needed.

MATHEMATICS EDUCATION

Symbol: MTE

501 Fundamental Concepts of Mathematics I (3) Selected topics which reflect the spirit of the modern mathematics currently taught in the elementary school. PREREQ: A one-semester undergraduate course in modern mathematics.

502 Fundamental Concepts of Mathematics II (3) Topics selected by mutual decision of students and professor on the basis of the experience in MTE 501. PREREQ: MTE 501.

504 Research in Mathematics Education (3) Techniques of research in mathematics education. Analysis of types of research; selection of a problem; formulation of a plan of investigation and report, including statistical analysis.

505 Research Techniques in Mathematics Education (3) Statistical principles in experimental design. General linear model correlation, regression, statistical inference, analysis of variance, factorial designs. Critiques of current literature.

507 Current Trends in Teaching Mathematics (3) Philosophy, techniques, subject matter, and effectiveness of current secondary school mathematics courses examined against the changing character of American society and technology.

508 Topics in Mathematics Education (3) Topics announced in advance. Typical topics include teaching mathematics to the slow learner, methods of research in mathematical education, mathematics laboratories, and individualized instruction.

509 Seminar in Mathematics Education (3) Topics depend upon student interest. Student presentations required; informal discussion encouraged. Guests, including secondary school principals and mathematics curriculum coordinators, frequently participate.

510 Algebra for the Elementary Teacher (3) An introduction to modern algebra. Topics include a comparative study of mathematics systems. PREREQ: MTE 501 or equivalent.

530 Geometry for the Elementary Teacher (3) Basic concepts in geometry. Euclidean geometry and postulative systems. PREREQ: MTE 501 or equivalent.

550 Topics in Mathematics for Elementary School Teachers (3) In-depth coverage of topics in mathematics introduced in grades K-8. Topics include; number theory, probability, statistics, inequalities, introduction to the computer. Emphasis among these and inclusion of additional topics depend upon student preparation and need. PREREQ: MTE 501 or equivalent.

551 Mathematics for the Disadvantaged (3) Examination of current programs in mathematics for the disadvantaged; discussion of the pertinent research literature; development of materials and techniques for teaching the slow learner and low achiever.

552 Materials for Teaching Secondary School Mathematics (3) Examination of available commercial materials for the teaching of mathematics; creation of new and original materials for specific mathematical concepts and specific needs of class members.

553 Teaching Elementary School Mathematics (3) In-depth treatment of strategies, methods, and materials for teaching the following concepts in an elementary classroom: place value; addition, subtraction, multiplication, and division of whole numbers; measurement; elementary number theory; geometry; fractions; integers. PREREQ: MTE 501 or equivalent.

554 Current Trends in Teaching Elementary School Mathematics (3) History and development of the modern elementary school mathematics programs. Theories and findings of recent and contemporary learning theorists are investigated. Modern organizational strategies surveyed include team teaching, individualized instruction, open space, etc. Contemporary instruction strategies such as individualized learning systems, mathematical laboratories, individually prescribed instruction, etc., are studied. PREREQ: MTE 501 or equivalent.

556 Development of Mathematics Curricula in the Elementary Grades (3) for the development of a specialty in modern elementary school mathematics education. Curriculum development techniques; selection and analysis of materials; individualization of instruction programs, techniques, and media. PREREQ: MTE 501 or equivalent.

558 Teaching Mathematics in the Junior High School (3) Methods and materials for teaching the concepts of middle school and junior high school mathematics. Objectives are developed, and serve as the basis for all course work. Current textbooks, achievement tests, and audio-visual materials are reviewed.

560 Teaching Algebra in the Secondary School (3) Methods and materials for teaching the concepts of first and second year algebra. Emphasis on relevant applications to real-life situations. Objec-

tives as well as criterion-referenced test items are developed for pre-algebra as well as for the two algebra courses. Current textbooks achievement tests, and audio-visual materials on algebraic topics are reviewed.

561 Calculus for Teachers (3) Analytic geometry of both the straight line and conics, and elements of the calculus of functions of a single real variable are reviewed. Topics include: limits, continuity, the derivative and integral and their applications, curve sketching and polar coordinates. Emphasis on methods of teaching these topics to secondary school students.

562 The Laboratory Approach to Teaching Elementary School Mathematics (3) The materials-oriented approach to teaching elementary school mathematics, including cuisenaire rods, the geoboard, attribute games, tangrams, multibase blocks. Emphasis on learners' participation in activities directly related to mathematics of the elementary school. Use of materials extends to all grade and ability levels.

563 Use of the Mathematics Laboratory in the Secondary School (3) Laboratory investigations and the curriculum; planning laboratory investigations; facilities for the laboratory approach; assessing the effectiveness of this approach with the low, average, and high achiever in the secondary school.

564 Individualizing Instruction in Secondary School Mathematics (3) Analysis of current programs for individualizing instruction in secondary school mathematics (IDEA, PLAN, Nova, Research for Better Schools, and Coatesville Project); analysis and development of an individualized instruction unit with performance objectives, criterion-referenced test items, media orientation, and appropriate tools for evaluation.

567 Teaching Geometry in the Secondary School (3) Methods and materials for teaching the concepts of geometry in the secondary school. Emphasis on the development of relevant applications of the concepts of geometry in real-life situations.

568 Seminar for Secondary School Mathematics Teachers (3) Selected topics of current interest in secondary school mathematics for the in-service teacher.

569 Seminar for Elementary School Mathematics Teachers (3) Selected topics of current interest in elementary school mathematics for the in-service teacher.

599 Independent Study (1-3)

610 Thesis (3-6)

STATISTICS

Symbol: STA

521 Statistics I (3) for non-mathematics majors. Emphasis on applications to education, psychology, and the sciences. Distributions, measures of central tendency and variability, correlation, regression and hypothesis testing, other topics.

523 Mathematical Statistics I (3) A rigorous treatment of probability spaces and an introduction to the estimation of parameters.

524 Mathematical Statistics II (3) Continuation of STA 523. Correlation, sampling, tests of significance, analysis of variance, other topics. PREREQ: STA 523.

525 Probability (3) An advanced approach to the elements of probability. Discrete and continuous random variables, probability distributions, sampling distributions.

599 Independent Study (1-3) Offered as needed.

SERVICE COURSES IN MATHEMATICAL SCIENCES

COMPUTER SCIENCE (CSC)

501 Introduction to Computers

515 Introduction to Computer Programming

550 Computers in Education

MATHEMATICS EDUCATION (MTE)

501 Fundamental Concepts of Mathematics I

502 Fundamental Concepts of Mathematics II

510 Algebra for the Elementary Teacher

530 Geometry for the Elementary Teacher

550 Topics in Mathematics for Elementary School Teachers

553 Teaching Elementary School Mathematics

554 Current Trends in Teaching Elementary School Mathematics

556 Development of Mathematics Curricula in the Elementary Grades

558 Teaching Mathematics in the Junior High School

560 Teaching Algebra in the Secondary School

561 Calculus for Teachers

562 The Laboratory Approach to Teaching Elementary School Mathematics

563 Use of the Mathematics Laboratory in the Secondary School

564 Individualizing Instruction in Secondary School Mathematics

567 Teaching Geometry in the Secondary School

568 Seminar for Secondary School Mathematics Teachers

569 Seminar for Elementary School Mathematics Teachers

STATISTICS (STA)

521 Statistics I

Music

Dr. Sullivan, *Assistant Dean*

Dr. Singleton, *Advisor for Graduate Studies*

The School of Music offers programs leading to the Master of Arts degree in music history and literature and the Master of Music degree with concentrations in music education, performance, accompanying, music theory or composition, piano pedagogy and Orff-Schulwerk. Course selections to meet degree requirements are made by candidates in consultation with their advisors and with due consideration of the candidate's goals, abilities, needs, and interests.

Admission to Degree Programs in Music

In addition to meeting basic university requirements, stated in Admission, applicants for degree programs are considered on the basis of academic record, interviews, preliminary tests, and auditions.

Prior to enrollment **all applicants** must (1) possess appropriate undergraduate degrees and may be required to remedy not more than 12 credits of undergraduate deficiency if the undergraduate degree is not in the area of the intended graduate degree; (2) schedule interviews with the appropriate department chairperson in the School of Music; (3) take a placement test in theory and music history prior to completing six semester hours of work and before registering for graduate courses in those departments. The tests are given during each semester and in the regular summer session.

The areas of concentration, directed electives, and free electives are described fully in a student handbook compiled by and available from the graduate advisor of the School of Music. Specific information as to the nature of the courses or the program may be obtained from the department chairperson.

Note:

Each degree candidate is individually responsible for satisfying degree candidacy and graduation requirements stated elsewhere in this catalog and for meeting deadline dates for the May, August, or December graduation, as appropriate.

Department of Music Education

Dr. Merrell, *Chairperson*

PROFESSORS

Margaretta A. Carey, Ed.D., *Pennsylvania State University*
 Richard C. Merrell, Ed.D., *Pennsylvania State University*
 Ira C. Singleton, Ph.D., *New York University*
 C. Wayne Stringer, Ed.D., *Columbia University; Diploma in Kodaly, Danube Bend University*
 James R. Wells, Ed.D., *Columbia University*

ASSOCIATE PROFESSOR

Carol Belmain, D.M.A., *Temple University*

ASSISTANT PROFESSOR

Karen Markey, M.Ed., *West Chester University, Orff Certification, Levels I, II, III*

DEGREE REQUIREMENTS

MASTER OF MUSIC IN MUSIC EDUCATION

Students may choose either the thesis program of 30 semester hours

or the non-thesis program of 34 semester hours (with an Orff-Schulwerk, option). All programs require completion of 9 credits in 3 core courses: MUE 500, 503, 510. Additional course requirements are:

Thesis program: 6 credits in music education; 6 credits in music electives; 3 credits in free electives; 6 credits in research (MUE 691, 692, 699).

Non-thesis program: 6 credits in music education; 3 credits in applied music; 3 credits in structure and organization of music; 3 credits in literature and history of music; 0-3 credits in unrestricted electives; 4 credits in research (MUE 691, 692, 698) or recital option (MUE 691, 696, Individual Lessons). Candidates desiring to pursue the recital option in voice must audition before the voice jury and receive permission to pursue that option before fifteen (15) graduate hours have been earned or at the completion of VOI 562, whichever comes first.

Orff-Schulwerk Concentration: 15 credits in Orff-Schulwerk; 3 credits of directed elective in music history and literature; and 7 credits of recommended electives.

COURSE DESCRIPTIONS

MUSIC EDUCATION

Symbol: MUE (unless otherwise shown)

500 Methods and Materials of Research (3) Basic techniques and procedures. Major types of research. Methods for locating, evaluating, and interpreting evidence. Preparation of a research outline.

503 Philosophical Foundation of Music Education (3) Historical and philosophical foundations of music education. Application of principles of education to music. Major emphasis on development of a philosophy of the discipline.

510 Current Trends in Music Education (3) Present practices and emerging developments in music education.

511 Vitalizing Music in the Elementary School (3) Study of song series, instruments, and materials in current use in the elementary classroom.

512 Teaching Music Listening at the Elementary Level (3) For the elementary classroom and music teacher. Teaching elements of music and musical concepts, and developing aesthetic sensitivity through listening.

513 Music Education in the Elementary School (3) For the music educator. Problems, procedures, and materials in the elementary school classroom. PREREQ: Elementary music methods, teaching experience.

514 Music Education in the Secondary School (3) The music curriculum in the secondary school. Emphasis on conceptual learning, structured curriculum, independent study, aesthetic experience and current materials. PREREQ: Secondary school music methods, teaching experience.

516 Administration and Supervision of School Music (3) Administrative problems, curricular content and scheduling, in-service training of teachers, and specialized supervisory techniques for the music curriculum. PREREQ: Teaching experience.

517 Psychology of Music (3) In-depth study of learning theories as related to music education and the nature of music.

520 Classroom Materials for Music Programs (3) Evaluation of the newest materials for music education.

522 Music in the Middle School (3) Review and critical analysis of music education in the middle-school; philosophies; curriculum; practices; personnel.

525 Elementary Kodaly Techniques (3) Basic Kodaly techniques. Adaptation of teaching procedures for elementary school: rhythm, melody, movement, improvisation.

526 Intermediate Kodaly Techniques (3) Continuation of MUE 525. PREREQ: MUE 525.

527 Projects to Individualize Music Classes (3) Evaluating learners and prescribing meaningful modes of instruction for individuals and small groups.

528 Music in Special Education (3) Characteristics of special pupils, adaptation of teaching techniques; materials curriculum.

530 Orff-Schulwerk — Level I (1-4) Designed to develop fundamental Orff processes through the acquisition of basic musical skills, soprano recorder techniques, and movement concepts. Level I is limited to pentatonic activities. (Credit placement determined through advisement)

531 Orff-Schulwerk — Level II (4) Designed to develop a theoretical comprehension of the evolution of "elemental music" through the Baroque period. Liturgical and diatonic modes are employed as vehicles in developing harmonic concepts. PREREQ: MUE 530 or Level I Orff Certification from an AOSA accredited program. Admission to program by audition.

532 Orff-Schulwerk — Level III (4) Designed to develop comprehension of twentieth century styles, theoretical and performance practices of Western and non-Western music while utilizing both ethnic and popular means. PREREQ: MUE 531.

533 Orff-Schulwerk: Recorder Ensemble (1) A culmination of recorder instruction through performance, analysis, and discussion into a survey of repertoire suitable for recorder consort and consort

with subordinate instruments. PREREQ: MUE 531. Open, as an elective, to students demonstrating playing proficiency on soprano and alto recorder. Admission by audition.

534 Orff-Schulwerk: Movement (1) An in-depth study to develop visual and spatial awareness, coordination and body control, imagination, improvisation, and kinesthetic understanding of musical elements as they interact within the Schulwerk process. PREREQ: MUE 531. Open, as an elective, to students demonstrating proficiency in creative movement, improvisation, and ethnic dance. Admission by audition.

535 Orff-Schulwerk: Instrumentarium Practicum (1) A survey of works by Carl Orff and Gunild Keetman as well as selected materials arranged for the instrumentarium which require advanced performance skills. PREREQ: MUE 531. Open, as an elective, to students demonstrating playing proficiencies utilizing basic techniques on unpitched and pitched instruments as well as improvisational skills. Admission by audition.

536-539 Workshops (1-3) Participation-oriented workshops designed to meet specific needs in music and music education and to develop skills for practical application in school and professional settings. (Prefixes: MWB Marching Band Techniques; MWE Music Education; MWH Handbells; MWK Kodaly; MWO Orff.)

679 Special Subjects Seminar (1-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-83 Independent Study in Music (1)(2)(3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

691-92 Research Seminar in Music (2)(1) A research proposal with supporting procedures is developed. Guidance in individual research topics, with tutorial assistance in form and style of research writing.

698 Research Report (1)

699 Thesis in Music Education (3)

Department of Music History

Dr. Schmidt, *Chairperson*

PROFESSORS

Irving Hersch Cohen, Ph.D., *New York University*

Constantine Johns, Ed.D., *Columbia University*

Sterling Murray, Ph.D., *University of Michigan*

Frederick C. Pflieger, Ph.D., *West Virginia University*

Liselotte M. Schmidt, Ed.D., *Columbia University*

Music History and Literature applicants must (1) schedule an interview with the chairperson of the Department of Music History; (2) arrange for the required test in basic principles of theory, music

history and style-critical analysis; and (3) present evidence of a reading knowledge of a foreign language, preferably French or German. Students found lacking in this area must remove this deficiency before graduation.

DEGREE REQUIREMENTS

MASTER OF ARTS IN MUSIC HISTORY

15 credits in five courses offered by the Department of Music History (Three must be chosen from MHL 640-645); 6 credits in research and bibliography (MHL 670 and MHL 699); 9 credits in electives (music and related disciplines).

COURSE DESCRIPTIONS

MUSIC HISTORY AND LITERATURE

Symbol: MHL

620 Folk and Non-Western Music (3) A study of the music of non-Western cultures and of Western folk music, along with an introduction to ethnomusicology and its research techniques.

621 African and Afro-American Music (3) Folk music, spirituals, work songs, field hollers, blues, ragtime, jazz, gospel songs, soul music, rock and roll. Includes some art music by black composers. PREREQ: An introductory music course.

622 History of Jazz (3) A survey of the history of jazz, including representative performers and their music.

640 Music of the Medieval Period (3) Development of plainsong and secular monody and beginnings and early history of polyphony to the 14th century. Consideration of contemporary trends in the visual arts, history, and literature.

641 Music of the Renaissance Period (3) Sacred and secular music in the Age of Dufay; changing forms and styles through the music of the Franco-Flemish groups; the frottola and related forms; Palestrina and his contemporaries. Brief consideration of contemporary trends in the visual arts, history, and literature.

642 Music of the Baroque Period (3) Styles and forms of Europe repertoire; contributions of the major composers; role of music and musicians in the society of the period.

643 Late 18th-Century Music (3) Changing styles and forms in: the sons of J. S. Bach; the Viennese pre-classicists; the Mannheim School; opera: Joseph and Michael Haydn, Mozart, and their contemporaries; and the early works of Beethoven.

644 Nineteenth-Century Music (3) Historical developments during the Romantic Period (ca. 1800-1900). Analysis of changes and trends; comparative aspects of new forms.

645 Twentieth-Century Music (3) Chronological survey of 20th-century music. Development of styles. Technical aspects of changes occurring in melody, rhythm, orchestration, texture, tonality, and form.

650 Aesthetics and Music Criticism (3) The nature of music, including philosophies of its meaning. Study of music criticism, past and present. Exercises in reviewing concerts and recordings. An elective course for all students.

651 Music in the United States (3) Analysis of music and musical trends in America from the Pilgrims to the present.

652 Performance Practices I (3) Historical and analytical consideration of the special problems in stylistic realization and performance of music of the Middle Ages and Renaissance (ca. 900-1600). PREREQ: MHL 221 and 222, or permission of the instructor.

653 Performance Practices II (3) Historical and analytical consideration of the special problems in stylistic realization and performance of music of the Baroque, Classic, and early Romantic eras (ca. 1600-1850). PREREQ: MHL 221 and 222, or permission of the instructor.

654 History of Opera (3) The composers and their major contributions to the various schools of opera.

655 History of Orchestral Music (3) How the symphony orchestra developed from the Baroque Period to the present in its function, literature, instrumentation, and performance practices.

656 History of Musical Instruments (3) The development of musical instruments from antiquity to the twentieth century. A world view of instruments will include function and performance practice.

657 History of Chamber Music (3) The history, forms, and changing styles and media of chamber music from the 16th century to the present. Principal composers are studied.

660 Bach and His Works (3) The life of J. S. Bach; works for organ, keyboard, and other instruments; cantatas and larger choral works.

661 Beethoven and His Works (3) The life and times of Ludwig van Beethoven; consideration of orchestral, chamber, and vocal music, emphasizing chronological stylistic development; consideration of Beethoven's influence on the later 19th century.

662 Mozart and His Works (3) A study of the life and music of Wolfgang A. Mozart with special reference to the period in which he lived.

670 Research in Music History (3) Bibliographical materials and research methods. Ability to read at least one foreign language required.

679 Seminar in Music History I (3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

680 Seminar in Music History II (3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-83 Independent Study in Music History (3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

699 Thesis in Music History (3)

Department of Instrumental Music

Dr. Barrow, *Chairperson*

PROFESSORS

Edward A. Barrow, Ph.D., *West Virginia University*
Kenneth L. Laudermilch, D.M.A., *Catholic University of America*

ASSOCIATE PROFESSORS

Richard A. Boerlin, M.S., *University of Illinois*
Terry E. Guidetti, M.Mus., *Northwestern University*
Ted Hegvik, M.M., *University of Michigan*
Eugene Klein, M.M.E., *Indiana University*
H. Lee Southall, M.A., *Trenton State College*

ASSISTANT PROFESSORS

Sylvia Moss Abramjian, M.M., *Indiana University*
Glenn Lyons, M.Mus., *Peabody Conservatory of Music*

Jane Richter, D.M.A., *Combs College*
Emily T. Swartley, M.Mus., *Temple University*

INSTRUCTOR

Joseph A. Goebel, Jr., B.S., *Millersville University*

DEGREE REQUIREMENTS

MASTER OF MUSIC IN PERFORMANCE

Instrumental Concentration: 10 credits in individual lessons at the advanced level (541-45, 2 credits each); INS 511 and 697 (2 cr.); 5-6 credits chosen from ICO 512 (2), INS 552, 553, 554, 555, or 556 (3); 4-5 credits in free electives (30 credits).

In addition to the general requirements for admission to degree programs in music instrumental performance applicants must schedule an interview with the department chairperson; submit a repertoire list; and demonstrate performance ability at an advanced level by performing for an audition committee.

COURSE DESCRIPTIONS

INSTRUMENTAL MUSIC

INDIVIDUAL LESSONS: Prefixes:

BAR, BAS, BSN, CLT, FLU, FRH, GTR, HRP,
OBO, PER, SAX, TBA, TPT, TRB, VCL, VLA,
VLN

501-02 Lessons at the Minor (beginning) level. (1)

511-14 Lessons at the Major level. (1)

541-45 Lessons at the Advanced level. (2)
For Performance majors only.

INSTRUMENTAL CLASSES: Teaching techniques for the various instrumental families.

ACB 591 Brass Class (2)
ACP 591 Percussion Class (2)
ACS 591 String Class (2)
ACW 591 Woodwind Class (2)
AEB 511 Marching Band (1)
AEB 521 Concert Band (1)
AEB 531 Symphonic Band (1)
AEB 541 Wind Ensemble (1)

AEO 531 Chamber Orchestra (1)

AEO 541 Symphony Orchestra (1)

AES 511 Instrumental Ensemble (2)

Program selection, recruitment of players, rehearsal and performance of music for small instrumental ensembles.

AIC 512 Advanced Instrumental Conducting (2) PREREQ: Undergraduate Conducting.

AIM 511 Marching Band Techniques and Materials (3) A survey of the function of the total marching band and of each component with the band.

AIM 521 Instrument Repair (3) Musical instrument care, preventive maintenance, adjustments, and minor repairs possible with basic equipment.

AIM 679-80 Special Subjects Seminar-Instrumental (1-2-3) Instrumental Music topics presented by faculty and or visiting lecturers.

AIM 681-83 Independent Study in Music (1-2-3)

AIM 696 Recital-Instrument (1) For Music Ed. majors in lieu of research report. PREREQ: Jury exam.

AIM 697 Recital-Instrument (2) For performance majors. PREREQ: Jury exam.

INSTRUMENTAL LITERATURE COURSES: A survey of solo, ensemble and teaching literature through performance and the use of scores and recordings.

ALC 511 Brass Literature (3)

ALC 531 String Literature (3)

ALC 541 Woodwind Literature (3)

ALC 551 Instrumental Literature (3)

MASTER CLASSES: Performance techniques and stylistic interpretation of instrumental solo works. PREREQ: Performance ability at the major level.

AMC 511 Master Class-Brass (1)

AMC 521 Master Class-Percussion (1)

AMC 531 Master Class-Strings (1)

AMC 541 Master Class-Woodwind (1)

MWB 536-39 Marching Band Workshop (3) A comprehensive marching band conference for the total marching band program. Foremost authorities offer instruction in their fields of specialization.

Department of Keyboard Music

Mr. Pandel, *Chairperson*

PROFESSORS

Robert E. Pennington, D.Mus., *Northwestern University*
Robert Schick, A.Mus.D., *Eastman School of Music*
Charles A. Sprenkle, D.Mus.A., *Peabody Conservatory of Music*
Richard K. Veleta, D.Mus., *Northwestern University*

ASSOCIATE PROFESSORS

Shirley T. Aliferis, M.Mus., *Indiana University*
Robert M. Bedford, M.S., *The Julliard School*
Patricia Taylor Lee, D.M.A., *Temple University*

Robert C. Lucas, Ed.D., *Teachers College, Columbia University*

Praxiteles Pandel, M.S., *The Julliard School*

Jacques C. Voois, M.Mus., *Manhattan School of Music*

W. Benjamin Whitten, M.Mus., *Peabody Conservatory of Music*

INSTRUCTOR

Richard W. Fields, M.M., *The Julliard School*

The Department of Keyboard Music offers three programs leading to the Master of Music. Students may concentrate in performance (piano or organ), accompanying, or piano pedagogy.

Performance applicants must (1) schedule an interview with the chairperson of the keyboard department; (2) submit a repertoire list; (3) demonstrate performance ability at an advanced level by performing for an audition committee.

Accompanying applicants must (1) schedule an interview with the chairperson of the keyboard department; (2) submit transcripts showing completion of a bachelor's degree in music, including one year (6 semester hours) of a foreign language, French, German, or Italian preferred; (3) demonstrate accompanying ability at an advanced level by performing for an audition committee.

Piano Pedagogy applicants must (1) schedule an interview with the keyboard department chairperson; (2) schedule an entrance examination which will consist of scales, arpeggios, solo repertoire from various stylistic periods, and sight reading. Applicants whose undergraduate degrees are not in music may be accepted into this program if they demonstrate equivalent background in piano.

DEGREE REQUIREMENTS

MASTER OF MUSIC IN PERFORMANCE

All programs require completion of one course in music history and literature (3) and one course in music theory and composition (3), as well as one of the concentrations described below

COURSE DESCRIPTIONS

KEYBOARD MUSIC

Symbol: PIA, ORG, KEN, MAK

501-2 Individual Lessons at the Minor Level in Piano, Organ (1) Individual half-hour lessons once weekly. An elective course for all graduate students.

511-14 Individual Lessons at the Major Level in Piano, Organ (1) Individual half-hour lessons. Continued study in the development of repertoire and performing skills. Students may be given permission to register for two course numbers in the same semester, earning the second credit by doing additional outside work and performing in a recital. PREREQ. Completion of the performance major requirements at the undergraduate level or admission by audition

541-45 Individual Lessons at the Advanced Level in Piano, Organ (2-4) Individual half-hour lessons once weekly. Advanced studies leading to a full-length recital at the master's level. PREREQ. Completion of the performance major requirements for the Bachelor of Music degree and/or admission by audition

KEN 546 Keyboard Ensemble (2)

525 Piano Technique (3) An exploration of the many approaches to acquiring and teaching piano technique; the correlation between technique and musical style; how to practice and to analyze physiological movements.

MAK 558 Master Class—Keyboard (1-2) Weekly performance sessions for advanced students.

570-71 Individual Lessons at the Advanced Level for Accompanists (2) Individual half-hour lessons once a week to train pianists in playing accompaniments. PREREQ: Admission to the M.M. concentration in accompanying.

572-73 Accompanying I, Vocal; II, Instrumental (3) Survey of accompanying literature: (I) art songs, recitatives, cantata, opera, and oratorio arias; (II) strings, winds, and brass. Performance and reading in class

PIA 574-75 Ensemble I, II (4) Accompanying in teaching studios for large groups (choruses), for various ensembles (trios, quartets), and for faculty,

BM, MM, general, and senior student recitals.

576 Harpsichord and Continuo Realization (1)

An introduction to harpsichord playing and the principles of continuo realization

577 Transposition and Score Reading (2)

Training in score reading and transposition at the keyboard

578 Individual half-hour lessons for students of piano pedagogy (2) PREREQ: Admission to the pedagogy concentration.

579 Individual half-hour lessons for students of piano pedagogy (2) Includes presentation of a full or half recital of concert works or pedagogical pieces, or a lecture-recital.

580 Group Piano Pedagogy I (4) Procedures and materials for group piano instruction from pre-school through beginning levels. Emphasis upon developing musical literacy and creativity through peer learning and group interactions. Includes practicum in group piano instruction.

581 Group Piano Pedagogy II (4) Procedures and materials for group instruction from the intermediate through advanced levels. Emphasis upon developing comprehensive musicianship through an interwoven study of literature, musical analysis, technique, improvisation, ear training, harmony, transposition and sight reading. PREREQ. PIA 580.

582 Piano Pedagogy I (4) An in-depth study of repertoire and materials available to the studio piano teacher for the beginning and intermediate levels. Discussions of related concerns such as memorization, practice techniques, developing technique through literature, principles of fingering, and sight reading. Includes practicum in individual instruction.

583 Selected Topics in Piano Pedagogy (4) Further exploration of the goals and objectives of piano study through presentation of selected topics and continued practicum in individual instruction.

601 Baroque Keyboard Literature (3) The Renaissance through development of variation form and dance suite. Emphasis on performance practices, realizing ornament signs and figured basses; transferral to the modern piano; in-depth study of works of Handel, J. S. Bach, and D. Scarlatti. Some student performance required.

Piano Concentration. 10 credits in individual lessons at the advanced level, PIA 541-45; 6 credits in keyboard literature chosen from PIA 601, 602, 603, 604; 2-3 credits chosen from KEN 546, MAK 558, PIA 611.

Accompanying Concentration: 4 credits in individual lessons at the advanced level, PIA 570, 571; 8 credits of Ensemble, PIA 574, 575; 9 credits in cognate courses, PIA 572, 573, 576, 577; 3 credits in electives chosen from NAV 511-14, VOC 515, 516, or any curriculum in the university.

Organ Concentration: 10 credits in individual lessons at the advanced level, ORG 541-45; 6 credits in organ literature; 3 credits chosen from ORG 551, ORG 590.

Piano Pedagogy Concentration: 4 credits in individual lessons (PIA 578, 579); 16 units in piano pedagogy (PIA 580, 581, 582, 583); 6 units in keyboard literature (chosen from PIA 601, 602, 603, 604); 3-6 units of supportive work in music history and/or music theory; and 3-6 units of supportive work in methodology, psychology, and philosophy of education (selected from the Departments of Music Education; Childhood Studies and Reading; Psychology; and Counselor, Secondary, and Professional Education).

602 Classical Piano Literature (3) Literature for the early piano (1750-1830). Origin and development of the sonata; performance practices of homophonic style. Music of the sons of Bach, Haydn, Mozart, and Beethoven. Sound and structure of the early piano. Some student performance required.

603 Romantic Piano Literature (3) Analysis of piano styles of Schubert, Chopin, Mendelssohn, Schumann, Liszt, Brahms, Faure, Mussorgsky, Tchaikovsky and Grieg. Performance practices. The virtuoso etude and problems of technical execution. Some student performance required. PREREQ. PIA 426 (Keyboard Literature II) or equivalent.

604 Twentieth Century Piano Literature (3) Seminal works and styles of this century. Albeniz, Rachmaninoff, Debussy, Ravel, Prokofiev, Hindemith, Schoenberg, Bartok, American composers. Some student performance required. PREREQ: MTC 213 (Theory of Music IV) or equivalent.

608 Music of Chopin (3) A comprehensive study of the contributions of Frederic Chopin to keyboard literature.

611 The Piano Concerto (3) A chronological presentation of the development of the piano concerto; performance problems and practices will be emphasized. J. S. Bach to present.

679-680 Special Subjects Seminar (1-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-683 Independent Study in Music (1,2,3)

696 Recital (1) A shared (half) recital open to candidates for the Master of Music degree (music education concentration). In lieu of research report. Program notes required. PREREQ: Approval by committee examination.

697 Recital (2) A full public recital, demonstrating an understanding of various performance styles and ability to perform literature from several periods. Required of candidates for the Master of Music in applied music. PREREQ: Approval by committee examination.

Department of Music Theory and Composition

Dr. Wilkinson, *Chairperson*

PROFESSORS

Shirley A. Munger, D.M.A., *University of Southern California; Diploma in piano, Conservatoire Nationale de Musique (Paris)*

Larry A. Nelson, Ph.D., *Michigan State University*

Harry Wilkinson, Ph.D., *Eastman School of Music*

ASSOCIATE PROFESSORS

Charles D. Gangemi, M.A., *University of Pennsylvania*

James McVoy, Ph.D., *Eastman School of Music*

James D. Sullivan, Ph.D., *Eastman School of Music*

INSTRUCTOR

Deborah E. Sanford, M.M., *Temple University*

DEGREE REQUIREMENTS

MASTER OF MUSIC IN THEORY OR COMPOSITION

Both programs require completion of 23-24 credits in one of the areas of concentration; 3-4 credits of unrestricted electives; 3-4 credits in research (including thesis in theory or composition).

Theory and or Composition applicants must (1) schedule an interview with the chairperson of the Department of Music Theory and Composition; (2) demonstrate sufficient pianistic ability to meet the demands of the program. Composition applicants must, in addition, submit original works showing technical facility in composition.

COURSE DESCRIPTIONS

MUSIC THEORY AND COMPOSITION

Symbol: MTC (unless otherwise indicated)

512-14 Advanced Composition (3) Free composition in larger forms for ensembles, solo voice and chorus, chamber groups, and orchestra. PREREQ: MTC 213 (Theory of Music IV) or equivalent.

515 Serialism and Atonality (3) Compositional procedures and theoretical concepts in atonal and serial work of Schoenberg, Berg, Webern, Bartok, Stravinsky, and more recent composers. PREREQ: MTC 213 (Theory of Music IV) or equivalent.

516 Jazz Practices (3) Jazz history, writing, and performance. Survey of basic jazz literature, fundamental techniques in arranging and improvising. PREREQ: MTC 212 (Theory of Music III) or equivalent.

517 Electronic Music (3) Materials and techniques of electronic music and their use in composition. Laboratory experience in the composition of electronic music. PREREQ: Permission of the instructor.

MWJ 536-39 Jazz Studies Workshop (2) (3) A workshop for the study and performance of jazz. Arranging and ensemble performance opportunities. See special brochure for details.

540 Advanced Band Arranging (3) Emphasis on arranging for school bands. Consideration given to bands with inexperienced performers and limited instrumentation. PREREQ: Teaching experience and a knowledge of orchestration.

541 Advanced Orchestration (3) Original composition of arrangement for orchestra. PREREQ: A

knowledge of the instruments of the orchestra and experience in their use.

542 Advanced Musical Form (3) A detailed study of musical form, with emphasis on modifications of sonata form; vocal and instrumental forms of Baroque music, and forms which are unique.

544 Advanced Counterpoint I (3) Contrapuntal techniques of the 18th century. Chorale prelude and invention.

545 Advanced Counterpoint II (3) Continuation of MTC 544, including canon, invertible counterpoint, and fugue. PREREQ: MTC 544 or permission of the instructor.

550 Acoustics of Music (3) The study of sound; its production, transmission, and reception. Musical instruments, the acoustics of rooms, and the physical basis of scales.

552-53 Pedagogy of Music Theory I-II (3) (3) Techniques and materials for teaching music theory. MTC 552 is not a prerequisite to MTC 553.

554 Modal Counterpoint I (3) Use of modes, musica ficta, and cadences, in 16th-century music. Experience in imitation in two parts, using all note values; double counterpoint; pronunciation and setting of Latin texts.

546 Techniques of Early Twentieth Century Music (3) A study of compositional techniques in representative vocal and instrumental works of the first two decades of this century.

555 Modal Counterpoint II (3) Continuation of MTC 554. Writing in three and more voices. PREREQ: MTC 554.

561 Jazz Harmony and Arranging (3)

562 Advanced Jazz Harmony and Arranging (3) A study of improvisation and arranging, litera-

ture, and other aspects of an important phase of popular styles.

563 Seminar in Music Theory (2) Intensive work in selected areas of music theory. Guidance in individual projects leading to significant current developments in theory. PREREQ: Permission of the chairperson of the Department of Theory and Composition.

564 Performance Practices in Contemporary Music (3) A course (1) in which the participants will study technical problems of understanding new notation (e.g. graphic scores, proportional scores, multiphonics, microtones, metric modulation, asymmetrical rhythm groupings, prose scores, etc.) and will develop a reasonable facility in performing scores which include these techniques, (2) which will provide an ensemble for which composition students may compose, and (3) which will establish an ensemble which may publicly perform new music.

679 Special Subjects Seminar (1-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-83 Independent Study in Music (1)(2)(3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

691-92 Research Seminar in Music (2)(1) A research proposal with supporting procedures is developed. Guidance in individual research topics, with tutorial assistance in form and style of research writing.

697 Theory Thesis (3) For graduate majors in theory only.

698 Research Report (1)

699 Musical Composition Thesis (3) For graduate majors in composition only.

Department of Vocal and Choral Music

Mr. Sweet, *Chairperson*

ASSOCIATE PROFESSORS

Lois V. Alt, M.Mus., *University of Michigan*
 W. Larry Dorminy, D.Mus., *Indiana University*
 Mary Lou Frenz, M.Mus., *Westminster Choir College*
 H. Raymond Friday, Ph.D., *New York University*
 Jane E. Sheppard, M.Mus., *Indiana University*
 Roy D. Sweet, M.Mus., *Eastman School of Music*
 Joy Vandever, M.Ed., *West Chester University*
 G. Alan Wagner, M.F.A., *Carnegie-Mellon University*
 Lois M. Williams, M.A., *Columbia University; Fulbright Scholar (Germany 1953-1955)*

ASSISTANT PROFESSOR

Stella F. Conaway, M.Mus., *The Philadelphia Academy of Music*

DEGREE REQUIREMENTS

MASTER OF MUSIC IN PERFORMANCE

The program requires completion of one course in music history and literature (3) and one course in music theory and composition (3), as well as the concentration described below.

Voice Concentration: Required: 10 credits in individual lessons at the advanced level (VOI 541-545) and a recital (VOI 697). 7-9 credits chosen from VOC 511, 512, 513, 514, 515, 516, 524, 526, 529, 546, 591, and 612.

Voice applicants must (1) demonstrate advanced performance ability; (2) audition with a program that includes early Italian art song, German lied, French melodie, opera and oratorio; (3) demonstrate diction competency in at least Italian, German, and French; (4) submit a repertoire list; (5) schedule an interview with the department chairperson; (6) present evidence of a reading knowledge of foreign language, preferably French or German. Students lacking in this area must remove the deficiency before graduation.

COURSE DESCRIPTIONS

VOCAL-CHORAL

Symbol: CHO

511 Masterworks Chorus (1) Participation in the preparation of programs for concert performance.

611 Chamber Choir (1) Participation in the preparation of programs for concert performance. By audition.

612 Concert Choir (1) Participation in the preparation of programs for concert performance. By audition.

Symbol: VOC

MAV 511 Master Class—Baroque (1) Discussion and performance of songs from the Baroque period.

MAV 512 Master Class—German Lied (1) Discussion and performance of the German art song.

MAV 513 Master Class—French Melodie (1) Discussion and performance of the late French art song.

MAV 514 Master Class—20th Century Art Song (1) Discussion and performance of art songs from the 20th century.

515 English-Italian Diction (3) English, Italian, and Latin diction in a laboratory course to establish correct punctuation in singing. The phonetics of these languages are used in selected song repertoire.

516 French-German Diction (3) French and German diction in a laboratory course to establish correct pronunciation in singing. The phonetics of these languages are used in selected song repertoire.

524 Musico-Dramatic Production (3) Techniques of producing musical plays. Preparation of roles, coaching, and conducting rehearsals. May lead to a public performance of the material studied.

526 Choral Literature (3) Representative examples of choral music from the various musical periods. Primarily the larger works for chorus are used.

529 Vocal Literature (3) Classic song literature, lieder, melodie, and contemporary art songs are discussed.

536-39 Workshops (1-3) Participation-oriented workshops designed to meet specific needs in vocal-choral music.

546 Vocal Ensemble (2) Self-study in the performance and preparation of small ensembles. Project must have the approval of the department chairperson.

591 Vocal Pedagogy (3) Principles and techniques of teaching voice.

612 Advanced Choral Conducting (2) Study and application of choral conducting techniques. PREREQ: VOC 312 or permission of instructor.

679-80 Special Subjects Seminar (1-3) Significant topics presented by faculty or visiting lecturers.

681 Independent Study (1)

682 Independent Study (2)

683 Independent Study (3)

691 Research Seminar in Music (2)

692 Research Seminar in Music (1)

Symbol: VOI

501-02 Individual Lessons at the Minor Level (1) An elective course for graduate students.

511-14 Individual Lessons at the Major Level (1) A course for voice majors in the degree Master of Music in music education. PREREQ: Completion of the undergraduate voice major requirements or by audition.

541-45 Individual Lessons at the Advanced Level (2) Advanced vocal studies culminating in a full master's recital. PREREQ: Completion of the performance requirements for the Bachelor of Music in voice program and/or admission by audition.

696 Recital (1) Half public recital for candidates in the Master of Music Education program in lieu of a research report. Candidate must write approved program notes. PREREQ: Approval by the examination committee.

697 Recital (2) A full public recital demonstrating an understanding of various performance styles and the ability to perform. Required of candidates for the Master of Music in Voice degree. PREREQ: Approval by the examination committee.

Philosophy

Dr. Claghorn, *Chairperson and Coordinator of Graduate Studies*

PROFESSORS

George S. Claghorn, Ph.D., *University of Pennsylvania*
 W. Stephen Croddy, Ph.D., *Brown University*
 Walter J. Hipple, Ph.D., *University of Chicago; Litt. D., Shimer College*
 Thomas W. Platt, Ph.D., *University of Pennsylvania*
 Stanley Riukas, Ph.D., *New York University*
 Paul A. Streveler, Ph.D., *University of Wisconsin*
 Frederick R. Struckmeyer, Ph.D., *Boston University*

The Department of Philosophy offers a program leading to the Master of Arts in philosophy. This degree will serve as a foundation for studies leading to a Ph.D. in philosophy or prepare one for positions in industry, government, or college teaching.

Admission to the Program

In addition to meeting general requirements for admission to a degree program at West Chester, applicants must present a minimum

of 12 hours of undergraduate philosophy, including courses in history of ancient philosophy, history of modern philosophy, ethics, and logic.

Foreign Language Requirement

Candidates for the M.A. must demonstrate a reading proficiency in French, German, or Spanish.

Final Examination Requirement

A comprehensive, written final examination is required. This will cover four fields: (1) metaphysics; (2) any two from: logic, ethics, aesthetics, philosophy of language, philosophy of science, or American philosophy; and (3) any agreed-upon philosopher, such as: Plato, Aquinas, Kant, or Wittgenstein.

MASTER OF ARTS IN PHILOSOPHY

30 Semester Hours

All candidates are required to take PHI 599 and PHI 640. Beyond these requirements the student has the choice of a thesis or non-thesis program.

The thesis program requires 12-15 semester hours in philosophy; 3-6 semester hours of electives, chosen from philosophy or related courses; and the thesis (PHI 610) for 6 semester hours.

The non-thesis program specifies 15-18 semester hours in the philosophy concentration and 3-6 semester hours of electives (philosophy or related).

COURSE DESCRIPTIONS

PHILOSOPHY

Symbol: PHI

506 Meaning in Language (also LIN 506) (3) A discussion of topics having to do with meaning in everyday oral communication.

512 Ethical Theories (3) Examination of various ethical theories with practical applications to such problems as authority, punishment, rights, marriage, and race.

513 Aesthetic Theories (3) History of aesthetics, as seen in classic interpretations. Origins of art, psychological and sociological; the role of art works in the enrichment of life.

514 Philosophy of Religion (3) Dominant trends in religious philosophy of the Western world. Religious language, reason and faith, science, the nature of man, the existence of God, and mysticism.

515 Existentialism (3) Background and themes of current existentialism, as reflected in Kierke-

gaard, Jaspers, Marcel, Heidegger, and Sartre. Evaluation of existentialism and its impact on contemporary literature, drama, art, and society.

520 Philosophy of Mind (3) The human mind, according to representative views. Presuppositions and implications, both scientific and philosophic, traced and analyzed. The mind-body problem; perception; memory; and the implications of depth psychology.

522 Philosophy of Science (also SCI 522) (3) The course begins with case studies in science and derives general principles from them. Scientific law, analogy, models, variant theories, confirmation, and interpretation.

523 Philosophy of Language (also LIN 523) (3) Problems of language and oral communication, with emphasis on problems of reference.

530 American Philosophy (3) American views of man, society, and the universe, from colonial times to the twentieth century.

531 Oriental Philosophy (3) Central figures and classic teachings of Eastern philosophy and reli-

gion: Islam, Hinduism, Buddhism, Confucianism, Taoism, and Shintoism; naturalistic and humanistic elements of decisive influence on the culture of the Orient.

536 Symbolic Logic (3) Basic principles and methods of symbolic logic. Practice in determining validity of sentential and quantificational arguments. The algebra of classes.

590 Independent Studies in Philosophy (3)

599 Philosophic Concepts and Systems (3) Basic concepts of the philosophic enterprise: form, matter, the categories, cause, and purpose. Relation of premises to method and conclusions. Rival theories are compared for justification and adequacy.

610 Thesis (3-6)

640 Seminar (3) Study and evaluation of the major works of one philosopher, such as Plato, Aquinas, Kant, or Wittgenstein.

The following undergraduate course may also be taken for graduate credit, when properly approved: PHI 483, Philosophy of History.

Physical Education

Dr. Cochran, *Chairperson*

Mrs. Greenwood, *Assistant Chairperson - Physical Education Sport and Safety*

Mr. Jones, *Assistant Chairperson - Recreation Leisure Studies and Dance*

Dr. Lank, *Assistant Chairperson - Sports Medicine and Exercise Science*

Mr. Trezise, *Coordinator Required Physical Education Program*

Dr. Youmans, *Coordinator Graduate Studies: Health and Physical Education*

The Department of Physical Education offers degree programs leading to the Master of Education in health and physical education, a Master of Science in physical education and a concentration in athletic administration within the Master of Science in Administration. The Master of Education enriches academic preparation for teaching in the public schools and/or first-level employment in the various professions related to health and physical education. The Master of Science is designed primarily to meet individual needs of the graduate student who wishes to pursue graduate work beyond the master's degree or a career in research. The M.S. may also serve to prepare personnel for staff positions in education, government, and industry.

The sport and athletic administration concentration in the Master of Science in Administration program meets the needs of those persons interested in entering the field of sport and athletic administration and of those persons presently in sport and athletic administration interested in upgrading their careers.

Certification programs in driver education and safe living and coaching are also offered by the Department of Physical Education.

The Department of Physical Education also offers graduate assistantships.

THE PROFESSOR RUSSELL STURZEBECKER SCHOLARSHIP

The Graduate Division in the School of Health Sciences in the Department of Physical Education administers the Professor Russell Sturzebecker Scholarship. Through the kind generosity of Mr. John F. Unruh a \$100 award is made each semester to a "worthy and needy" graduate student in health and physical education. The award is donated by Mr. Unruh in honor of Professor Sturzebecker.

The recipient must be working full time in the field of health and physical education and must be a part-time student at West Chester University working towards a master's degree in his or her professional field.

Graduate students who meet the above criteria are invited to submit a letter of application for the scholarship along with a resume of their professional and academic status. These documents should be submitted to Chairperson, Department of Physical Education on or before December 15th for the first semester award and on or before March 15th for the second semester.

THE GRADUATE SCHOLARSHIP

The Graduate Division of the Department of Physical Education administers a graduate scholarship. The amount of money awarded may vary somewhat from year to year depending on the funds available, but it is anticipated that the award will be approximately \$300 each year.

Selection criteria include 1) scholarship, 2) citizenship and character, 3) leadership, 4) need, and 5) ability in and/or contribution to specific areas of health or physical education.

Application forms are available from the office of the Department of Physical Education, Room 106, South Campus.

COMMUNICATION WITH THE DEPARTMENT

All inquiries and other communications regarding the graduate program in physical education should be addressed to the Coordinator of Graduate Studies, Department of Physical Education, School of Health Sciences, West Chester University, West Chester, PA 19383. Phone 215-436-3434.

COMPREHENSIVE EXAMINATION

The Comprehensive Examination for graduate students in physical education is administered twice a year—in March and October. Each examination consists of an elective course portion to be given for two hours on a Tuesday and the required course portion to be given for a two hour period on the following Thursday.

Students desiring to take the examination should have been admitted to degree candidacy and completed all required course work or be currently enrolled and have completed the majority of their elective requirements. A letter of intent to take the comprehensive examination should be filed with the Coordinator of Graduate Studies, Department of Physical Education, School of Health Sciences, West Chester University, West Chester, PA 19383. Letters of intent should be filed by February 15th or September 15th for the March or October examination respectively.

Upon receipt of the letter of intent and with the approval of the coordinator, students will be sent a letter setting forth the details of time and place of the examination and a set of sample questions.

MASTER OF SCIENCE PROGRAM

Admission to the M.S. Program

Applicants must meet the basic requirements of the University, given under Admission and must present a baccalaureate degree earned in their anticipated major area of health or health and physical education or equivalent preparation in a related field.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy majors in physical education must complete any three of the departmental core courses with a minimum quality point average for these and all other courses during pre-candidacy of 3.00.

Requirements for M.S. Degree

1. Satisfactory completion of the M.S. curriculum shown below with an average of 3.00.
2. Satisfactory performance on written and/or oral comprehensive examination.
3. Successful completion of thesis or research report.
4. Oral defense of the thesis (Thesis track only).

CURRICULUM

- 1. Degree Core** 21 s.h.
 - PED 572 Advanced Motor Learning (3)
 - PED 580 Psychological and Sociological Foundations of Physical Education and Sports (3)
 - PED 585 Biomechanics (3)
 - HPE 600 Research Methods in Health, Physical Education and Recreation (3)
 - PED 601 Statistical Design for Research and Evaluation in Physical Education (3)
 - PED 602 Philosophical Foundations of Physical Education (3)
 - PED 681 Advanced Exercise Physiology (3)
- 2. Additional Degree Requirements—Thesis Track** 12 s.h.
 - PED 608 Thesis Seminar (3)
 - PED 610 Thesis (3)
 - Electives selected under advisement (6)
- Additional Degree Requirements—Research Report Track** 13 s.h.
 - PED 607 Research Report Seminar I (2)
 - PED 608 Research Report Seminar II (2)
 - Electives selected under advisement (9)

The thesis proposal must be formally approved within the thesis seminar (PED 608) before the student may register for Thesis (PED 610). *IMPORTANT: To be considered on active status, the student must register for PED 608 until the thesis proposal is formally approved and then for PED 610 until the thesis is formally completed. Failure to do so will result in the student's having to begin the thesis process over again starting with PED 608. The same rules apply to research report students and courses PED 606 and 607.*

MASTER OF EDUCATION IN HEALTH AND PHYSICAL EDUCATION

Admission to the M.Ed. Program

In addition to meeting the basic requirements of the University given under Admission, applicant must present a baccalaureate degree earned in the field of health and physical education or equivalent preparation in a related field.

Admission to the M.Ed. Candidacy

Within the 15 semester hours of precandidacy the student must complete three of the core courses with an average of 3.0.

Requirements for the M.Ed. Degree

1. Completion of the M.Ed. curriculum shown below with an overall average of 2.75: 3.00 in the respective major field.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of the research project.

CURRICULUM

- 1. Degree Core** 12 s.h.
 - HPE 600 Research Methods in Health, Physical Education and Recreation (3)
 - PED 601 Statistical Design for Research and Evaluation in Physical Education (3)
 - PED 602 Philosophical Foundations of Physical Education (3)
 - PED 681 Advanced Exercise Physiology (3)
- 2. Electives**
 - Selected under advisement from within department 7-10 s.h.
 - Selected under advisement may be from related field 3-6 s.h.
- 3. Additional Degree Requirements** 10 s.h.
 - EDF 510 Educational Foundations (3)
 - HEA 620 School Health Problems (3)
 - PED 606 Research Project Seminar I (2)
 - PED 607 Research Project Seminar II (2)

The research project consists of a two semester sequence PED 606 and 607 which must be preceded by successful completion of HPE 600 Research Methods in Health, Physical Education and Recreation.

IMPORTANT: To be considered on active status the student must continuously register for PED 606 including summer sessions until this requirement is met; continuous registration is similarly required for PED 607.

CONCENTRATION IN SPORT AND ATHLETIC ADMINISTRATION—MASTER OF SCIENCE IN ADMINISTRATION

Admission to the M.S. Program.

Applicants must meet the basic requirements of the University, given under Admission, and must present a baccalaureate degree in their anticipated major area of health and physical education or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy, majors in the sport and athletic concentration must complete three of the administrative core courses and two of the sport and athletic administration core courses with a minimum quality point average for these courses during pre-candidacy of 2.75.

Requirements for the M.S. Degree

1. Satisfactory completion of the M.S. in administration curriculum shown below with an overall average of 2.75.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of research project.

CURRICULUM

- 1. Administrative Core** 18 s.h.
 - ADM 501 Administrative Theory and Environment (3)
 - ADM 502 Computers for Managers
 - ADM 503 Accounting for Administration (3)
 - ADM 504 Communication for Administrators (3)
 - ADM 505 Organizing Human Resources (3)
 - ADM 506 Budgeting and Fiscal Management (3)
- 2. Sport and Athletic Administrative Core** 15 s.h.
 - PED 580 Psychological and Sociological Foundations of Physical Education and Sport (3)
 - HPE 600 Research Methods in Health, Physical Education and Recreation (3)
 - PED 601 Statistical Design for Research and Evaluation in Physical Education (3)
 - PED 602 Philosophical Foundations of Physical Education (3)
 - PED 604 Administration and Supervisory Practices in Health, Physical Education, Recreation, and Athletics (3)
- 3. Additional Requirements** 4 s.h.
 - PED 606 Research Project Seminar I (2)
 - PED 607 Research Project Seminar II (2)

The research project consists of a two semester sequence PED 606 and 607 which must be preceded by successful completion of HPE 600 Research Methods in Health, Physical Education and Recreation. *IMPORTANT: To be considered on active status the student must continuously register for PED 606 including summer sessions until this requirement is met; continuous registration is similarly required for PED 607.*

CERTIFICATION PROGRAM IN DRIVER EDUCATION AND SAFE LIVING

(Highway Safety and General Safety Education)

Richard B. Yoder, Coordinator

A teacher's certificate may be extended to include education for safe living (highway safety and general safety education) by completing 12 semester hours of course work in the Department of Physical Education. Six of these hours must be met by History and Philosophy of Safety Education and Principles of Accident Prevention (PED 660) and Seminar in the Four-Phase Program of Driver Education (PED 561). The remaining two courses are chosen, under advisement by the coordinator, from PED 661, 662, and 560.

COURSE DESCRIPTIONS

Symbol: PED unless otherwise indicated

500 Contemporary Problems in Health, Physical Education, and Recreation (3) Problems in teaching health, physical education, and recreation; in-service aspects; factors and variables which influence solutions of these problems.

550 Elementary Physical Education Workshop (3) Orientation for the teaching of elementary physical education. Principles and practices; appropriate activities for various grade levels.

551 Elementary Physical Education Recreation Music Workshop (2) Leading and teaching rhythmic activities and singing in elementary physical education and recreation. Fundamental level. Instruction programmed music textbook; piano and guitar chords. Creating and teaching recreational and singing games.

552 Learnings on The Move (3) Movement education and perceptual motor theory. Activities to guide children to maximal development potential.

560 Seminar in Motorcycle Safety Education (3) Curricular design, administration, and operational techniques of motorcycle safety programs. Laboratory experiences.

561 Seminar in the Four-Phase Program of Driver Education (3) In-service experience for driver-education teachers in classroom. BTW, multi-car method, and simulation.

570 Leadership in Outdoor Adventure Education (3) This program is designed to provide instruction which would help persons interested in understanding and adapting "Outward Bound" philosophy, educational methodology, process, and activities for use in outdoor education and physical education programs.

572 Advanced Motor Learning (3) An investigation into the theories, research, and practical applications of the processes and conditions involved in the teaching and learning of physical skills.

577 Summer Dance Workshop/Effective Projection in Theater Dance (1) Experience in dance as a performing art, lighting, set design, costume. Original compositions are staged. The workshop combines various dance techniques.

580 Psychological and Sociological Foundations of Physical Education and Sport (3) Study of the cultural evolution of sport and physical education; the inter-relationship between sport and culture; the social dynamics, institutionalization and sociological elements of activity; a basis of sport psychology.

581 Adapted Physical Education (3) Techniques for a program of adapted physical education in the public school. Application of activities to benefit the child with a temporary or permanent disability.

582 Modern Principles of Athletic Training (3) A course for the physical educator and or coach. Injuries which occur in class, practice, and game situations; preventive taping and wrapping; immediate first-aid procedures; relations with the medical profession.

585 Biomechanics (3) A review of and/or introduction to the basic principles of biomechanics and the application of those principles to research and teaching.

586 The Olympic Games — Their Influences on the Ancient and Contemporary Worlds (3) Ancient and modern games and their historical and cultural significance. Sociological and political implications of the modern games.

HPE 600 Research Methods in Health, Physical Education and Recreation (3) Techniques of research applied to the field of health, physical education and recreation.

601 Statistical Design for Research and Evaluation in Physical Education (3) The practical and theoretical application of the basic concepts of elementary statistics as it relates to the evaluative procedures, research, and teaching in physical education.

602 Philosophical Foundations of Physical Education and Sport (3) Analysis and synthesis of the nature, meaning, and value of health and physical education from an historical perspective. Development of a personal philosophy of the field.

604 Administration and Supervisory Practices in Health, Physical Education, Recreation, and Athletics (3) Nature of the positions of directors or supervisors of physical education, recreation, and athletics. Job specifications; operational principles and procedures.

605 Curriculum in Physical Education (3) Trends in health and physical education curricula at the elementary, secondary, and college levels. Surveys, reports, and analyses of curriculum practices.

606 Research Project Seminar I (2) A course for the masters candidate who selects the report option. The student selects a problem for the research report, reviews the literature, develops procedures and collects the data. He or she is expected to complete the first three chapters of the research report during Seminar I and will continue to register for this course each semester and summer session until this requirement is met. The student then registers for Seminar II.

607 Research Project Seminar II (2) The masters candidate registers for this course after completing Seminar I. In this course the student completes Chapters four and five of the research report. The student must continue to register for this course each semester and summer session until the report is satisfactorily completed.

608 Thesis Seminar (3) A course for the student who selects the thesis option. The candidate selects a topic, reviews the literature, develops procedures and prepares a proposal acceptable to the thesis committee. Candidates continue to register for this course until they have met the requirements. They then register for PED 610.

609 Independent Study (1-3) The student selects an independent study project and develops a proposal. This may be in support of the student's research or related to his or her vocation. The proposal must be accepted and approved by the coordinator of graduate studies the semester prior to registration for independent study.

610 Thesis (3) The student registers for this course after completion of PED 608. He or she writes the five chapters of the thesis during this course and must register for this course until the thesis is accepted by the committee.

650 The Child and Physical Education (3) Contributions of physical education to the child's physical, social, emotional, and intellectual growth

and to his developmental needs and interests. The influences of various activities on growth and development.

660 History and Philosophy of Safety Education and Principles of Accident Prevention (3) The safety movement in the United States and other countries. Place of safety education in modern living, philosophies of safety-education leaders; accident causation and prevention; their research implications. Background for administering school, civil defense, and emergency safety programs.

661 Contemporary Practices and Program Evaluation in Safety Education (3) Current practices, evaluation of programs, and research of current literature in safety education. Techniques for selecting, constructing, and utilizing instruments for evaluating safety-education programs. Problem-solving projects.

662 Problems in Traffic and Driver Education (3) Contemporary curriculum and current practices in driver and traffic education, enforcement of traffic laws and regulations, engineering problems. Problem-solving projects.

663 Psychology in Safety Education and Accident Prevention (3) Effects of unconscious determinism, habits, attitudes, individual adjustment, motivation, and personality on accident causation. Research implications explored.

680 Scientific Principles of Coaching (3) Recent trends in theories and techniques of teaching sports. Mechanical principles of efficient movement. Research related to competitive performance. Specialists serve as guest panelists.

681 Advanced Exercise Physiology (3) Clinical and laboratory use of exercise in evaluating, maintaining, and modifying human physiological processes: Growth development, metabolism and weight control, and cardio-vascular—respiratory functions in health and disease; neuromuscular integration and performance. Stress physiology and training and conditioning.

682 Biodynamics of Human Performance (3) Physiology of the active, vital organism. Scientific findings concerning human performance, especially under stress and accompanying physiological adjustments.

683 Comparative Physical Education (3) Comparative study of programs outside the United States. Current philosophies, principles, and practices.

684 Sport and Society (3) Using an historical context, a model of the role of sport in a variety of societal environments will be constructed. Emphasis will be placed on the view of sport as a form of human expression that is reflective of the current value structure or a particular society.

685 Women's Exercise and Sports (3) The physiological, psychological, and sociological effects of exercise and sport on the female participant.

SERVICE COURSES

The following courses are open to students in all curricula, with no prerequisite in health and/or physical education required:

PED 550; 551, 552, 560, 561, 570, 577, 580, 581, 585, 605, 650, 660, 661, 662, 663, 680, 682.

Physical Science Program

(Interdepartmental)

Program Coordinators: Dr. Greenberg (Geology and Astronomy), Dr. Smith (Physics)

A degree program designed primarily for those who teach the physical sciences in high school, junior high school, or the middle school is given on an interdepartmental basis through the Departments of Chemistry, Geology and Astronomy, and Physics.

Leading to the Master of Arts degree, the program makes it possible for students to plan a sequence of studies meeting their individual needs. This may be accomplished either through selections from each of the disciplines or by concentrating in one of them.

Entrance Requirements

Students entering the program are normally expected to have a bachelor's degree in science or science education and, if teaching in the public schools, a valid teaching certificate.

MASTER OF ARTS IN PHYSICAL SCIENCE

34 Semester Hours

Science education requirements for the program must be met with SCE 500—Modern Trends in Science Education and PHS 502—Modern Trends in Teaching Physical Science. A science elective area of at least 29 semester hours is developed, under advisement, from selections in chemistry, geology and astronomy, and physics. The elective area may be concentrated in chemistry, geology and astronomy, or physics.

At the end of the program the student must pass a comprehensive examination dealing with topics he or she would ordinarily teach. For course offerings see Chemistry, Geology and Astronomy, and Physics.

Physics

Dr. Skelton, *Chairperson*

Dr. Smith, *Coordinator of Graduate Studies*

PROFESSORS

Russell K. Rickert, Ed.D., *New York University*

Frank A. Smith, Jr., Ed.D., *Temple University*

Stanley J. Yarosewick, Ph.D., *Clarkson College of Technology*

ASSOCIATE PROFESSORS

Robert W. Hawkes, M.S., *Pennsylvania State University*

Brent Kaplan, M.M.E., *New York University*

Harold L. Skelton, Ph.D., *University of Delaware*

The Department of Physics is one of three departments within the Faculty of Arts and Sciences offering a degree program leading to the Master of Arts in physical science. See Physical Science Program.

COURSE DESCRIPTIONS

PHYSICAL SCIENCE

Symbol: PHS

500 Fundamentals of Radioisotope Techniques (3) Biological, chemical, environmental, and physical effects of nuclear radiation. Radiation detection, instrumentation, and radio-tracer methodology. PREREQ: 1 year of college chemistry and 1 year of college physics.

502 Modern Trends in Teaching Physical Science (2) Materials and techniques in teaching physical science; demonstrations and experiments.

504 Foundations of Physics (3) Introduction to classical physics; vectors, mechanics, waves.

505 Modern Concepts in Physics (3) Introduction to electricity and magnetism, light, the nature of radiation, quantum and atomic physics, radioactivity. PREREQ: 504 or equivalent.

507 Modern Trends in Physical Science (3) Recent developments in physical science and their relation to secondary school science. Topics depend on backgrounds and needs of students.

510 Electronics (3) Laboratory oriented course. Review of A.C. and D.C. circuits, transistor circuits, introduction to integrated circuits, and digital electronics. PREREQ: General physics.

511 Electricity (3) Analysis of the principles of electricity and electromagnetism. PREREQ: Differential and integral calculus, general physics.

512 Mechanics (3) Mathematical analysis of dynamics and statics. PREREQ: Differential and integral calculus, general physics.

513 Modern Physics (3) Twentieth-century contributions and ideas, including special relativity, quantum theory, atomic structure, solid state structure. PREREQ: General physics.

522 Optics (3) A course in geometrical and physical optics. Topics include reflection and refraction, thin lenses, the optics of vision, interference, diffraction, polarization, and the laser.

580 Energy Conversion and Utilization (3) The energy crisis, fossil fuels, nuclear, solar, wind, and geothermal energy, societal implications, and applications.

590 History of the Physical Sciences (3) From Aristotelian concepts to modern scientific concepts.

592 Independent Studies (1-3)

PHI 522 Philosophy of Science (see Philosophy)

PHYSICS

Symbol: PHY

515 Mathematical Physics I (3) Topics of mathematics applied to problems in physics. Topics include ordinary differential equations, complex variables and hyperbolic functions, vector calculus, and numerical analysis.

532 Nuclear Physics (3) Basic nuclear properties, nuclear structure, alpha and beta decay, gamma radiation, nuclear reactions, particle accelerators, detection equipment, and elementary particles.

533 Nuclear Physics Laboratory (1) Ordinarily accompanies PHY 532. Preparation and handling of radioactive samples and examination of nuclear decay characteristics and reactions. With instructor's approval, PHY 533 may be elected without concurrent enrollment in PHY 532.

The Department of Physics has approved any 400 level physics course for graduate credit when scheduled with the approval of the student's advisor.

Psychology

Dr. Sands, *Chairperson*

Dr. Kumar, *Coordinator of Graduate Studies*

PROFESSORS

Jay L. Clark, Ph.D., *University of Minnesota*

Bernard B. Cohen, Ph.D., *New York University*

Robert S. Means, Ph.D., *University of Alabama*

Walena C. Morse, Ph.D., *Bryn Mawr College*

Edward I. Pollak, Ph.D., *University of Connecticut*

Jack Porter, Ed.D., *Temple University*

Harold R. Sands, Ph.D., *Pennsylvania State University*

Edward D. Smith, Ed.D., *Pennsylvania State University*

ASSOCIATE PROFESSORS

Mary E. Crawford, Ph.D., *University of Delaware*

V. Krishna Kumar, Ph.D., *University of Wisconsin*

Samuel F. Moore, Ph.D., *University of Cincinnati*

Louis H. Porter, Ph.D., *Howard University*

Thomas Treadwell, Ed.D., *Temple University*

Elizabeth H. Logan, M.A., *Temple University*

Leigh Shaffer, Ph.D., *Pennsylvania State University*

Robert R. Shinehouse, M.A., *Temple University*

Three degree programs are offered by the Department of Psychology. One leads to the Master of Arts in psychology; the second to the Master of Arts in social science with a concentration in psychology; the third to the Master of Science in administration with a concentration in psychology. Within the M.A. in psychology, concentrations are offered in Clinical Psychology, Industrial Organizational Psychology, and General Psychology.

Admission Standards

The minimum admission standards for the Department of Psychology are undergraduate GPA — 3.00; Psychology GPA for 3 or more courses — 3.25; GRE or MAT scores in the 40th percentile or above; and three letters of reference. An interview with the Department Admissions Committee may also be required. Typically, admissions are made on a once-a-year basis with April 15 serving as the application deadline.

Admission to the clinical and industrial organizational concentrations is relatively competitive, and only a limited number of the top applicants are accepted in these programs each year. Students accepted into the general concentration may, with the approval of the Graduate Committee, transfer to the clinical concentration if they have achieved a 3.2 or better GPA in the five core courses (PSY 503-504, 505, 506 and 512) and no less than a 3.0 in any other courses taken while completing the core. Although not yet exactly defined, the transfer requirements for the Industrial Organizational concentration will parallel in principle those outlined for transfer to the clinical concentration, but the core involved is as follows: PSY 503-504, 509, 524 and 445. A few applicants who do not fully meet the outlined admission requirements may be admitted on a provisional basis depending on their maturity, relevant work experiences, and academic promise.

Degree Programs

Several degree options are offered. The Master of Arts degree is offered with a concentration in clinical psychology for students who

wish to work in a mental health setting or to continue their education at the doctoral level. A concentration in general psychology is offered for students interested in research, teaching, or in continuing their graduate studies. The concentration in industrial/organizational psychology is designed for students interested in employment in business or industry or for those who wish to continue their education at the doctoral level in a related area. Finally, two interdisciplinary programs are offered which are designed to meet the needs of students with more diversified interests.

Students will have to take one or more courses during the summer to complete their program.

MASTER OF SCIENCE IN ADMINISTRATION:

Concentration in Psychology

The Department of Psychology participates in an interdisciplinary degree program leading to a Master of Science in administration with a concentration in psychology. See Administration.

MASTER OF ARTS IN PSYCHOLOGY

Concentration: Clinical Psychology

40-42 Semester Hours

Students who wish training as clinical psychologists and who are admitted into this concentration take 36 semester hours of required courses. These are PSY 503-504-505-506-512-517-524-527-544-549-559, and 595 or 596. They are also required to take the Clinical Practicum for 4 to 6 semester hours.

The West Chester master's degree program in clinical psychology has been approved by the Pennsylvania State Board of Psychologist Examiners as meeting the educational requirements for licensure in Pennsylvania. To qualify for licensure, students are required to complete 40 semester hours in the clinical psychology concentration.

Concentration: General Psychology

33-36 Semester Hours

Students who wish training in general psychology are required to take 15 semester hours of required courses. These are 503-504-505-506 and 512. Either a thesis (PSY 610) for 3 semester hours or a research report (PSY 600) for 3 semester hours is required. All students in this concentration must complete 15 semester hours of electives from courses offered in the department. (Courses restricted to clinical psychology majors cannot be taken as electives). Subject to approval, six semester hours of electives may be taken from any university graduate offering.

Concentration: Industrial/Organizational Psychology

The industrial/organizational concentration includes 27 semester hours of required coursework (PSY 503-504, 509, 524, 445, 560, 562, 564 and 566). A 3 credit internship and a 3-6 credit research experience (PSY 600 and/or PSY 610) are also required. In addition, students must take two elective courses which in combination with their internship and research experience will enable them to explore a particular aspect of the field in greater depth. The elective courses may be taken outside of the Psychology Department. With careful selection of electives, internship, and research focus, students will be able to develop specialization in human factors, personnel evaluation and placement, or group and organizational processes aspects of industrial/organizational psychology.

MASTER OF ARTS IN SOCIAL SCIENCE

Concentration: Psychology

30-36 Semester Hours

The Master of Arts in social science, an interdisciplinary degree within the Faculty of Arts and Sciences, is particularly designed for teachers desiring strengthened subject-matter knowledge in more than one academic discipline. The program also prepares students for careers in government and industry and is appropriate for those desiring cultural enrichment. The concentration in psychology is especially recommended for students whose interests are directed toward human concerns and services. Candidates in this concentration are advised by the Department of Psychology.

Requirements

In the research area PSY 503-504 are required. The student must take from 9 to 12 additional semester hours of psychology courses, selected under advisement. Within the concentration a research report (PSY 600), a thesis (PSY 610), or a practicum in an applied setting (PSY 615 or PSY 620) may be recommended.

Beyond the psychology concentration, the student must complete 12 semester hours of social science electives chosen from at least two departments other than psychology. Finally there is a cognate elective area of 0-3 semester hours, to be chosen from any school in the university.

COURSE DESCRIPTIONS*

PSYCHOLOGY

Symbol: PSY

501 Introductory Statistics for the Behavioral Sciences (3) Central tendency, variability, standard scores, correlation, probability, sampling, tests of hypotheses, "t" test, chi square, distribution-free statistics, introduction to analysis of variance. PSY 501 is particularly recommended for those who are weak in, or have not previously been exposed to, behavioral sciences statistics.

503-504 Research Methodology and Statistics I-II (3) (3) This two semester sequence course covers descriptive and inferential statistical techniques with emphasis on application to research in psychology and related areas. 503 must precede 504. PREREQ: PSY 501 or equivalent

505 Advanced General Psychology (3) Intensive consideration of learning, memory, cognitive processes, motivation, emotion, human development, personality, and physiological psychology.

506 Theories of Learning (3) Survey and critical review of existing theories of learning and the relevant research data.

509 Advanced Social Psychology (3) Emphasizes contemporary approaches to the study of social behavior including cognitive, social, and experimental and quasi-experimental research methodology.

512 Psychology of Personality (3) The interaction and effects of forces which influence personality development. Normal and neurotic development contrasted; principles of personality measurement explored.

517 Psychopathology (3) Advanced study of abnormal human behavior and a description of pertinent types, including symptoms, causes, and treatment. Current and recent theoretical approaches and research findings relevant to the etiology and treatment of these disorders. PREREQ: PSY 375 and 512, or equivalents, or permission of instructor.

524 Psychometrics (3) A survey of measurement theory in psychology with emphasis on the logic of measurement, scaling models, statistical methods,

construction of valid and reliable measures.

PREREQ: PSY 503, and 512 recommended.

527 Behavior Modification (3) Application of learning principles and environmental control to behavior change. Foundation principles, techniques and assessment methods of modification. PREREQ: PSY 506 or equivalent.

530 Human Sexual Behavior (3) The study of those variables under which human sexual behavior functions. Research from sociological and medical studies is integrated with psychological knowledge.

544 Individual Psychometric Techniques: Wechsler & Binet Scales (3) Historical development, administration, scoring, and interpretation of the Wechsler and Binet scales. PREREQ: PSY 501 and PSY 524 or equivalent. Restricted to psychology majors. By permission only (Usually restricted to clinical psychology majors).

549 Introduction to Projective Techniques and Personality Testing (3) History and theory of personality testing. Introduction to administration, scoring and interpretation of projective techniques. PREREQ: PSY 517 or equivalent, and PSY 524. Restricted to clinical psychology majors or permission of instructor.

550 Seminar in Psychology (1-3) Selected problems in psychology. Subject announced in advance of each semester. Offered on demand.

555 Psycholinguistics (also LIN 555) (3) See LIN 555. Offered on demand

559 Psychotherapy (3) Theoretical considerations, principles, techniques, and problems involved in counseling and psychotherapy. Usually restricted to clinical psychology majors. PREREQ: PSY 512, 517 or equivalents

560 Advanced Industrial and Organizational Psychology (3) Application of individual differences, learning and aptitudes to functions such as personnel selection, placement training, and performance appraisal. Also, emphasis directed to psychological aspects of organizational functioning such as worker motivation, job satisfaction, organizational development, and strategies for organizational change.

562 Psychology of Occupational Behavior (3) Selected theoretical and empirical findings relevant to career development over the life span, implications of national manpower policy, and vocational counseling procedures within the context of business and industrial settings

564 Human Factors and Performance Analysis (3) Methods and results of experimental psychology pertinent to man-machine relationship

problems. Workplace design, systems approach, control and display and man-in-space challenges are emphasized

566 Seminar in Industrial Organizational Psychology (3) Recent technical, legal, social and ethical aspects of the field are covered. Affirmative action and assessment, equal opportunity, minorities and women in the work force, and other pertinent issues are emphasized

590 Independent Studies in Psychology (1-3) Research projects, reports, readings in psychology. PREREQ: Approval of department chairperson

595 Clinical Psychology (Child and Adolescent) (3) Survey of clinical techniques used in assessment and treatment of childhood and adolescent personality disorders. Restricted to psychology majors. PREREQ: PSY 512, PSY 517.

596 Clinical Psychology (Adult) (3) Theoretical foundations of clinical evaluation, screening, and treatment methods. Emphasis on clinical psychology as a profession. PREREQ: PSY 512, PSY 517.

600 Research Report (3) An original review of the literature

610 Thesis (3-6) An original empirical study. PREREQ: PSY 504 and permission of instructor.

615 Clinical Practicum in Psychology (3-6) Supervised professional participation in applied psychological activities or projects in cooperating agencies and institutions. PREREQ: PSY 503, 504, 505, 506, 512, 517, 524, 544, 559, 595 or 596. Restricted to psychology majors and recommendation of graduate clinical faculty.

620 Practicum in School Psychology (3-15) Supervised experience as a school psychologist. Offered for students seeking out-of-state certification as a school psychologist (West Chester University does not presently offer a program leading to certification as a school psychologist in the Commonwealth of Pennsylvania). Restricted to psychology majors

630 Internship in Industrial Organizational Psychology (3) Supervised professional participation in applied psychological activities within a business and/or organizational setting. PREREQ: Permission of instructor.

*All courses in the Psychology Department are restricted to those students who have been admitted to a degree program by the Psychology Department, or to those who have received special permission to register for a course from the Psychology Department Graduate Coordinator.

*While work on these courses may be completed any semester, students are encouraged to enroll for them during the summer sessions

Courses may be cancelled or semester changed as required by enrollment. Summer courses depend upon adequate enrollment

The following four 400 level courses are frequently taken for graduate credit, with one of these — PSY 445 — serving as a core requirement in the industrial/organizational concentration:

443 Psychology of Group Processes (3) Survey of psychological group processes, tracing the origins and historical development of the major contributing theoretical orientations

445 Organizational Development (3) The study of human behavior in task group and organizational contexts.

465 Psychology of Women (3) A study of behaviors and experiences of women: biological, cultural, interpersonal and intrapersonal determinants of women's actions, thoughts, and feelings are explored

These additional 400 level courses may be taken for elective graduate credit with the permission of the course instructor and the student's program advisor and/or the Psychology Department Graduate Coordinator: PSY 435 (Animal Behavior), 447 (Human Intimacy), 450 (Motivation), 461 (Applied

Psychology), 462 (History and Systems of Psychology), 464 (Physiological Psychology), 470 (Sensory and Perceptual Processes), 475 (Cognitive Psychology), 482 (Developmental Psychology II — Infancy and Childhood), 483 (Developmental Psychology III — Adolescence), 484 (Developmental Psychology IV — Adulthood and Aging), and 490 (Topical Seminar in Psychology). Descriptions of these courses can be found in the current West Chester University Undergraduate Catalog. Requirements in addition to those existing for undergraduates are imposed for any 400 level course taken for graduate credit.

Social Work

Ms. Joyner, *Chairperson*

Ms. Hodgins, *Graduate Coordinator*

ASSOCIATE PROFESSORS

Charlotte E. Bartlett, M.S.S., *Bryn Mawr College*

John A. Main, D.S.W., *University of Pennsylvania*

ASSISTANT PROFESSORS

Cheryl Hodgins, M.S.W., *University of Texas*

Mildred Joyner, M.S.W., *Howard University*

Mary W. McCullough, M.S.W., *University of North Carolina*

Robert B. McCutcheon, M.S.W., *Rutgers School of Social Work*

The department offers graduate courses in social work on a limited basis to graduate students from other areas as well as to advanced undergraduate majors and nonmajors.

MASTER OF SCIENCE IN ADMINISTRATION: Concentration in Social Work

The Department of Social Work participates in an interdisciplinary degree program leading to a Master of Science in Administration with a concentration in social work. See Administration, page 20.

Admission Requirements:

A B.S.W. or a B.A. degree in social work or a B.A. or a B.S. degree and related work experience. Any student lacking a degree in social work or related field and work experience, must seek approval of the graduate coordinator for entrance into the program.

COURSE DESCRIPTIONS

SOCIAL WORK

Symbol: SWO

520 Theory for Social Work Practice (3) A survey of various psychological/sociological theories with emphasis on their application to social work practice.

523 Supervision and Staff Development (3)

Basic concepts of supervision as a medium for instruction and staff development with an emphasis on the skill of supervision.

531 Program Development (3) A study of current funding streams and the techniques of proposal development.

532 Social Legislation (3) Analysis of social welfare policy with an emphasis on social change.

550-551 Field Instruction (3-6) The application and integration of theoretical concepts and the development of professional skills in a social agency in administrative practice.

552-553 Social Work Seminar (3-6) Students will meet in a weekly 2½ hour practicum for the integration of theory and practice experience.

NOTE: Individualized programs are designed to meet the needs of the students.

Sociology — See Anthropology and Sociology

Special Education

Ms. Nickles, *Interim Chairperson*

PROFESSOR

Howard Freeman, Ed.D., *University of Pennsylvania*

ASSOCIATE PROFESSOR

Martin Zlotowski, Ph.D., *Michigan State University*

ASSISTANT PROFESSORS

Judith S. Finkel, M.Ed., *West Chester University*

Deborah A. Nickles, M.S., *Syracuse University*

The Special Education Department offers a program leading to the Master of Education in special education. The program is open to teachers and other professionals working with handicapped people.

THE PROGRAM DOES NOT LEAD TO LEVEL 1 CERTIFICATION IN SPECIAL EDUCATION.

MASTER OF EDUCATION IN SPECIAL EDUCATION

Admission requirements: All candidates must meet the general requirements for admission to a degree program at West Chester University. These are found in the chapter on admissions.

The following items should be returned with the completed application form to the Office of Graduate Studies:

1. A copy of the applicant's Pennsylvania Instructional I Certificate
2. An extended statement describing the applicant's interests, needs and goals, including the applicant's interest in taking graduate study
3. Evidence of an acceptable score on the Miller Analogies Test

The applicants must arrange for interviews with two members of the Special Education Department. Arrangements are made through the department secretary.

Failure to complete any of these application requirements will result in provisional matriculation status and will limit the number of courses the student may take.

Degree Requirements

1. The student must apply to be admitted to candidacy after the completion of twelve credit hours of work at West Chester University, including EDF 510 and two courses from the Special Education Program. Grade point averages must be consistent with standards required in graduate studies at West Chester.
2. The student must pass a comprehensive examination after the completion of a minimum of 24 semester hours of work—maximum

30 semester hours. The student must file with the chairperson a written request to take the examination no later than two weeks prior to the date of the examination. The examination may be taken twice (a semester interval is required between failure and re-examination). A student who fails the examination twice must obtain approval of the chairperson to take it a third and final time.

3. The student must complete all degree requirements with a cumulative average of 3.0 in areas II and III, with an overall G.P.A. of 2.75.

MASTER OF EDUCATION IN SPECIAL EDUCATION

Program Description

The program is offered on a thesis or non-thesis basis:

Option A: (30 semester hours plus thesis)

This is the thesis program. The student will complete 9 hours in Area I, 12 hours in Area II, 9 hours in Area III, and EDA 590.

Option B: (36 semester hours)

Under this plan the student will complete 9 hours in Area I, 15 hours in Area II, and 12 hours in Area III.

Area I—Professional Education

EDF 500 Methods & Materials of Research in Education

EDF 510 Educational Foundations

EDP 550 Advanced Educational Psychology

Area II—Special Education

EDA 541 Psychology of Exceptional Children

EDA 573 Development Assessment

EDA 501 Prescriptive Teaching

EDA 580 Current Issues & Trends

EDA 581 Practicum (Required in Option B)

EDA 590 Research & Thesis (Required in Option A)

Area III—Concentration

Students will select an area of concentration under advisement. Concentration will consist of approved courses from one of the following areas:

The Arts	Instructional Media
Communication Disorders	Physical Education
Counseling	Psychology
Criminal Justice	Reading
Educational Research	Secondary Education
Elementary Education	Special Education
Areas	Urban Education
Health Education	

COURSE DESCRIPTIONS

Symbol: EDA

The following courses may be taken as electives by anyone in a graduate program, subject to approval from the department and the student's chairperson.

500 Mainstreaming for Exceptional Students (3) Designed to acquaint classroom teachers with special education students who may be spending some portion of the day in a regular setting. Current regulations and ways of meeting educational needs will be reviewed.

501 Prescriptive Teaching (3) An attempt to guide the teacher to an awareness of the methods by which medical, psychological, behavioral, and academic diagnosis may be converted into relevant educational terms providing for adequate follow-through on specific recommendations. PREREQ: EDA 573.

502 Nature and Needs of the Gifted and Talented (3) Definition, identification and enumeration of the characteristics of the gifted child, with emphasis on the need to provide effective and innovative means of meeting educational needs.

Special attention devoted to understanding the nature and problems of the gifted underachiever.

504 Workshop in Special Education (6) An intensive program of observation and instruction of mentally retarded or physically handicapped children. Instructional experience with handicapped children is combined with lecture, demonstration, films, guest speakers, and case study. Primarily for in-service teachers. PREREQ: Permission of coordinator.

541 Psychology of Exceptional Children (3)

Psychology of children whose intellectual, physical, social, and/or emotional characteristics are significantly deviant from those of children whose needs are met through normal educational routes.

542 Developmental Disabilities (3)

Focus on the concept of developmental disabilities including etiology, manifestations, and identification.

Genetic, psychosocial, and environmental factors are considered.

544 Classroom Management (3)

Exploration of current practices in the management and modification of behavior. The professional's role in achieving a better basis for meaningful communication with the special child. Problems which may interfere with teacher effectiveness are discussed.

560 Administration and Supervision of Special Education I (3)

An introduction to special education training. Concepts and practices presented will be those unique to the field of special education.

561 Administration and Supervision of Special Education II (3)

This course is intended to develop an understanding of the principles and practices used in supervision, emphasizing individual and group processes.

562 Supervision Practicum: Special Education (3)

This course is designed to practice those skills gained through course work and necessary for successful performance. This practicum will be done in an education facility and assessed by administrative and supervisory personnel.

571 Childhood Learning Disabilities (3)

The study and education of the child with perceptual problems and/or minimal brain damage.

572 The Emotionally Disturbed Child (3)

A study of abnormal and atypical behaviors exhibited by disturbed children with emphasis on environmental contingencies and implications.

Intervention and prevention strategies will be discussed.

573 Developmental Assessment of Children with Learning Problems (3)

Diagnostic procedures and subsequent educational prescriptions useful with children experiencing learning difficulties. PREREQ: EDA 541 or equivalent.

575 Mental Health in Schools (3)

Factors affecting the mental health of both children in the classroom and their teachers. Effective means of

identifying and responding to problems are brought out through a seminar approach. The course also explores the effect of mental health on classroom climate.

580 Current Issues and Trends (3)

Current trends, problems, and issues in special education, teacher education, research and administration will be explored. Emerging concepts relating to special education and exceptional children will be emphasized.

581 Practicum: Special Education (3)

Intended to provide the student an opportunity to put skills gained through course work into practice under supervision from the department. Weekly seminar required.

590 Independent Study (1-3)

591 Thesis and Research (6) The course will provide the student the opportunity to learn how to evaluate and interpret published research, to conduct a critical research review, and to develop and carry out an original research paper. Offered on a two-semester basis with each part carrying 3 credits. PREREQ: EDF 500.

Speech Communication and Theatre

Dr. Klinzing, *Chairperson*

PROFESSORS

Diane O. Casagrande, Ph.D., *Temple University*

William M. Morehouse, Ph.D., *Purdue University*

ASSOCIATE PROFESSORS

Jay H. Berkowitz, M.A., *Temple University*

Dennis R. Klinzing, Ph.D., *Pennsylvania State University*

ASSISTANT PROFESSOR

Sandra M. Hall, M.A., *Ohio State University*

The department does not offer a graduate degree. Graduate level courses are open to those who hold a baccalaureate degree and meet West Chester University admission standards.

COURSE DESCRIPTIONS**SPEECH COMMUNICATION**

Symbol: SPC

515 General Semantics (also LIN 515) (3)

Introduction to the relativistic language concepts of Korzybski and his followers. The course focuses on what language does to people and the subsequent effects on communication.

517 Producing the Television Program (Non-dramatic) (3)

Basic concepts of television planning and production for the nondramatic format. The student uses the tools of television. (Lecture and laboratory.)

518 Television Program Directing (Dramatic) (3)

Continuation and development of skills and

knowledge in the use of television equipment;

application of the arts of the theatre and film.

(Lecture and laboratory.) PREREQ: THA 517.

550 Listening: Verbal and Nonverbal Perceptions (3)

A survey of research in listening behavior and related nonverbal variables. Identification of important characteristics of effective listeners. Application to communication activities in the classroom.

COURSE DESCRIPTIONS**THEATRE**

Symbol: THA

506 Theatre Theory and Production (3) A survey of theatre history and practice. Students select

specific areas of production and style for classroom presentation, analysis, and research.

516 Theory and Application of Creative Dramatics (3)

The use of creative dramatics as a teaching method. Research and application of theories and techniques.

550 Summer Drama Workshop (1-6)

An intensive combination of instruction and applied production experiences. Graduate students will research production theories and submit scholarly papers at the end of the session. Summer only.

Teaching English as a Second Language

Dr. Falgie and Dr. Smith, *Program Coordinators*

Diane O. Casagrande, *Professor of Speech*

W. Stephen Croddy, *Professor of Philosophy*

Joseph Falgie, Jr., *Professor of English and Linguistics*

John T. Kelly, *Associate Professor of English*

Willie E. Page, Jr., *Associate Professor of English*

Philip D. Smith, Jr., *Professor of TESL and Linguistics*

Paul A. Stoller, *Associate Professor of Anthropology*

The Master of Arts in Teaching English as a Second Language is an interdisciplinary program contributed to by the Departments of Anthropology-Sociology, English, Foreign Languages, Philosophy, and Speech Communication and Theatre. The program is designed for those preparing to teach English to students whose first language is not English. Students wishing to enter the program must consult one of the coordinators.

M.A. IN TEACHING AS A SECOND LANGUAGE (TESL)

33 Semester Hours

Required Courses

LIN 501, 503; LAN 500, 502, 503; ENG 575, 576, 577

Students submitting equivalent courses for any of the above may substitute, under advisement, courses from the groups below.

Electives

Selected from the groups below. At least one course must be selected from Group 1.

24 s.h.

9 s.h.

In addition to meeting the general requirements for a master's degree at West Chester, the candidate must (1) present an acceptable baccalaureate degree which includes at least 24 semester hours in the area of English/Foreign Languages/Linguistics, at least 6 semester hours in the area of Anthropology/Psychology/Sociology, and a course in teaching reading (may be taken as a program elective if lacking); (2) take the verbal and quantitative tests of the Graduate Record Examination or the Miller Analogies Test if deemed necessary; (3) demonstrate adequate proficiency in a foreign language if the student is a native speaker of English or adequate proficiency in English if the student is a non-native speaker of English; and (4) fulfill the course requirements and pass a written and/or oral comprehensive examination, offered on the second Wednesday of October and March.

Group 1: ENG 579; LIN 540, 555, 580

Group 2: ENG 578, 590; LAN 504, 505, 580, 590, 600, 610; LIN 504, 505, 512, 590; PHI 506, 523; SPC 515

With the approval of the coordinators, students wishing to acquire certification in English while enrolled in this program may use up to 6 hours of electives for this purpose. Students who have completed a minimum of 24 semester hours in approved courses are eligible for a certificate in TESL.

For descriptions of courses under this program see English (ENG); Foreign Languages (LAN); Linguistics (LIN); Philosophy (PHI); and Speech Communication and Theatre (SPC).

Women's Studies

Dr. Schlau, *Coordinator*

Mary Ann Duffy, *Assistant Professor, Library Services; Documents and Maps Librarian*

Joyce Countiss, *Assistant Professor of Physical Education*

Mary E. Crawford, *Associate Professor of Psychology*

Madelyn Gutwirth, *Professor of Foreign Languages*

Sandra Hall, *Assistant Professor of Communication and Theatre*

Joan Hasselquist, *Associate Professor; Chairperson, Childhood Studies and Reading*

Pamela Hemphill, *Professor of Art*

Mary A. Keetz, *Professor of Childhood, Studies and Reading*

Monita Lank, *Professor of Physical Education*

Alice B. Markow, *Professor of English*

Lynette F. McGrath, *Professor of English*

Christina McCawley, *Chairperson, Library Services; Assistant Professor*

Mary McCollough, *Assistant Professor of Social Work; Director, Women's Center*

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Mary Ann Reiss, *Assistant Professor of Foreign Languages*

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Stacey Schlau, *Assistant Professor of Foreign Languages*

Anne Sessa, *Professor of History*

Carolyn G. Simmendinger, *Associate Professor of Art*

Jane B. Swan, *Professor of History*

John J. Turner, *Professor of History*

Richard J. Webster, *Professor of History; Coordinator, American Studies*

The Women's Studies Program consists of an interrelated group of courses offered in both arts and sciences and professional studies. Graduate courses include EDE 589 Teaching Skills to Combat Sexism, ECO 503 Economic Role of Women, PSC 515 Women and Politics, SWO 521 Social Group Work with Women in Transition, FRE 509 Women and Men in French Literature, PSY 465 Psychology of Women, and PED 685 Women in Sport.

The graduate student may also pursue a Master of Science in Administration degree with the concentration leadership for women. This concentration involves six courses in administrative skill areas and six additional courses which enable the student to develop a mode of leadership appropriate to workplaces in which access to organizational power is inequitable for sexes of equal training and talent. See Leadership for Women and Administration.

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MARY M. BLISS, *Biology*
JUSTO B. BRAVO, *Chemistry*
BARBARA J. COATES, *Physical Education*
FAYE A. COLLICOTT, *Librarian*
GERALDINE C. CONBEER, *Librarian*
EDWIN B. COTTRELL, *Health and Physical Education*
GEORGE CRESSMAN, *Education*
KATHERINE M. DENWORTH, *Education*
MARK M. EVANS, *Director of Student Teaching*

RUTH FELDMAN, *Psychology*
CHARLOTTE M. GOOD, *Education*
THELMA J. GREENWOOD, *Biology*
H. THEODORE HALLMAN, *Art*
CHARLOTTE E. KING, *Childhood Studies and Reading*
CARRIE C. KULP, *Education*
MURIEL LEACH, *Health and Physical Education*
JACK A. OWENS, *Health and Physical Education*
N. RUTH REED, *Health*
B. PAUL ROSS, *Education*
W. CLYDE SKILLEN, *Biology*
RUSSELL L. STURZEBECKER, *Health and Physical Education*
ELINOR Z. TAYLOR, *Physical Education*
EDWARD T. TWARDOWSKI, *Health and Physical Education*
S. ELIZABETH TYSON, *English*
EARLE C. WATERS, *Health and Physical Education*
JAMES J. WRIGHT, *Music Theory and Composition*

Distinguished Faculty Awards

TEACHING

1974-1975
 THOMAS A. EGAN
 E. RILEY HOLMAN
 MICHAEL A. PEICH

1975-1976
 GEORGE W. MAXIM
 PHILIP D. SMITH, JR.
 WILLIAM TOROP

1976-1977
 IRENE G. SHUR

1977-1978
 GEORGE F. REED
 RICHARD I. WOODRUFF

1978-1979
 JOHN J. TURNER, JR.
 C. RALPH VERO

1979-1980
 CAROLYN B. KEEFE
 JOHN A. MANGRAVITE

1980-1981
 LOUIS A. CASCIATO
 FRANK A. SMITH, JR.
 JANE B. SWAN

SERVICE

WALTER E. BUECHELE, JR.
 CARMELA L. CINQUINA
 PHILLIP B. DONLEY
 EDWARD N. NORRIS

ROBERT E. BYTNAR
 ANDREW E. DINNIMAN
 RUSSELL L. STURZEBECKER

MARC L. DURAND*
 ROBERT F. FOERY*
 BERNARD S. OLDSEY
 *Joint Project

ROBERT E. CARLSON
 ROBERT H. WEISS

PHILIP D. SMITH, JR.
 NORBERT C. SOLDON

PHILIP B. RUDNICK
 JOSEPH M. THORSON

Distinguished Teaching Chairs

1982-1983
 FRANK A. SMITH
 JANE B. SWAN

Merit Awards

1982-1983
 DIANE O. CASAGRANDE
 JANE E. SHEPPARD

MARY A. KEETZ
 CHARLES H. STUART

1983-84
 LOIS WILLIAMS

ELIZABETH A. GIANGIULIO
 KOSTAS MYRSIADES

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ACADEMIC CALENDAR 1985-86

FALL SEMESTER 1985

September 3, 4, Tuesday, Wednesday	Late Scheduling, Department Faculty Meetings (as announced)
September 4, Wednesday	Classes begin (4:00 P.M.)
September 5, Thursday	Day Classes begin (8:00 A.M.)
September 16, Monday	Rosh Hashanah*
September 25, Wednesday	Yom Kippur*
November 27, Wednesday	Thanksgiving Recess begins (5:00 P.M.)
December 2, Monday	Thanksgiving Recess ends (8:00 A.M.)
December 14-20	Examination Period
December 14, Saturday	Commencement
December 21, Saturday	Fall Semester ends (5:00 P.M.)

SPRING SEMESTER 1986

January 15-17, Wednesday-Friday	Late Scheduling
January 20, Monday	Classes begin
March 8, Saturday	Mid-term recess begins (5:00 P.M.)
March 17, Monday	Mid-term recess ends (8:00 A.M.)
March 27, Thursday	Spring break begins (5:00 P.M.)
March 31, Monday	Spring break ends (8:00 A.M.)
May 9, Friday	Reading Day (no classes)
May 10-16	Examination Period
May 16, Friday	Spring Semester ends (5:00 P.M.)
May 17, Saturday	Commencement

SUMMER SESSIONS 1986

Pre Session	Monday, June 2-Friday, June 20
Regular Session	Monday, June 23-Friday, August 1
Post Session	Monday, August 4-Friday, August 22

*Although the University will be in session, no examinations are to be administered on these major Jewish Holy Days.

West Chester
University
West Chester, Pennsylvania ■ 19383

R. GERALD SCHOELKOPF
G616
LIBRARY

This Summer... Come to West Chester

Graduate courses



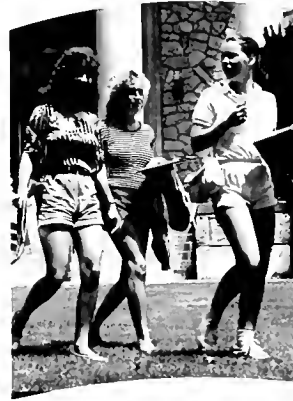
Modern,
Well-Equipped
Laboratories



Nearby
Brandywine
River Museum



Pleasant
Classrooms



Spacious Campus

CALENDAR AND REGISTRATION INFORMATION

GRADUATE SUMMER SESSIONS

1986

1986	APRIL							1986
S	M	T	W	T	F	S		
		1	2	3	4	5		
6	7	8	9	10	11	12		
13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
27	28	29	30					

1986	MAY							1986
S	M	T	W	T	F	S		
				1	2	3		
4	5	6	7	8	9	10		
11	12	13	14	15	16	17		
18	19	20	21	22	23	24		
25	26	27	28	29	30	31		

1986	JUNE							1986
S	M	T	W	T	F	S		
1	2	3	4	5	6	7		
8	9	10	11	12	13	14		
15	16	17	18	19	20	21		
22	23	24	25	26	27	28		
29	30							

1986	JULY							1986
S	M	T	W	T	F	S		
		1	2	3	4	5		
6	7	8	9	10	11	12		
13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
27	28	29	30	31				

1986	AUGUST							1986
S	M	T	W	T	F	S		
					1	2		
3	4	5	6	7	8	9		
10	11	12	13	14	15	16		
17	18	19	20	21	22	23		
24	25	26	27	28	29	30		

Scheduling and payment begin April 14 and continue until the termination date given below for each session. In-person and late registration take place in the Learning and Research Center. If necessary, another person may register for you at late registration.

PRE SESSION

Beginning of Scheduling Period	Monday, April 14
Deadline for Mail Scheduling and Payment	Friday, May 16
Deadline for In-person Scheduling and Payment	Friday, May 23
Late-Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, May 29
2:30 to 4:30 p.m. and 5:30 to 6:30 p.m.	
Classes begin 8:00 a.m.	Monday, June 2
Classes end	Friday, June 20

REGULAR SESSION

Beginning of Scheduling Period	Monday, April 14
Deadline for Mail Scheduling and Payment	Friday, June 6
Deadline for In-person Scheduling and Payment	Friday, June 13
Late Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, June 19
2:30 to 4:30 and 5:30 to 6:30 p.m.	
Classes begin 8:00 a.m.	Monday, June 23
Holiday	Friday, July 4
Classes end	Friday, August 1

POST SESSION

Beginning of Scheduling Period	Monday, April 14
Deadline for Mail Scheduling and Payment	Friday, July 18
Deadline for In-person Scheduling and Payment	Friday, July 25
Late Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, July 31
1:30 to 3:30 p.m.	
Classes begin 8:00 a.m.	Monday, August 4
Classes end	Friday, August 22

The above offices are located in the Learning and Research Center, corner of High Street and Rosedale Avenue. The Summer Sessions and Graduate Offices are open Monday through Friday 8:00 a.m. to 4:00 p.m. The Office of the Registrar is open Monday through Friday 9:00 a.m. to 3:00 p.m. The Student Accounts Office is open Monday through Friday 8:00 a.m. to 3:30 p.m.

TELEPHONES (Area Code 215)

Summer Sessions	436-2230
Registrar	436-3541
Graduate Studies and Sponsored Research	436-2943
Student Accounts	436-2552



Welcome to West Chester!

West Chester's location is hard to beat! Situated in the rolling hills of Chester County just 25 miles west of downtown Philadelphia, it offers students many of the advantages of both the city and the countryside. Near such historical, cultural and recreational attractions as Independence Hall, Brandywine River Museum, Longwood Gardens, and Valley Forge Music Fair, West Chester is an ideal place to spend the summer.

Convenient Shopping

Books, records, cards, clothes, handcrafts, sporting goods—everything the student could want or need is available from friendly, local merchants in shops within walking distance of the University. If bargain hunting is your specialty, join the bus trip to the Reading factory outlets sponsored by Recreational Services. For information on local shops, visit the West Chester Chamber of Commerce at 40 East Gay Street and pick up the Central West Chester Shopping Guide. For information on the trip to Reading, call (215) 436-2133.

Great Food!

Whether you're looking for your favorite fast food restaurant, traditional Philadelphia cheesesteaks and

hoagies, a candlelight gourmet dinner, or exotic foreign fare, chances are you'll find it in or near West Chester. Many of the area's favorite eating spots are described in the Restaurant and Entertaining Guide available from the Chester County Tourist Bureau, 117 West Gay Street, in downtown West Chester.

Public Transportation

Philadelphia and many suburban communities are accessible by bus or train from West Chester. Schedules and fare information are generally available in Sykes Union Building, at the Philips information desk, and by phone. For train information call (215) 574-7800. For bus information, call (215) 734-1300. Rainbow cab provides taxi service in West Chester and the surrounding area. Call (215) 696-6060.

Sports, Sports, Sports!

Watch the Philadelphia Eagles train right on the West Chester University campus from mid-July to August. See the team work out, get your favorite player's autograph, and watch a rookie scrimmage. "Take me out to the ball game!" with

a bus trip to a Phillies home game sponsored by Recreational Services. For more information call (215) 436-2133.

Camping, Boating, Swimming, Hiking, Fishing and More

Chester County is fortunate to have two state parks and five county parks offering a full range of outdoor recreational activities. Camping and canoeing equipment may be rented from Recreational Services. For more information on nearby parks, visit the Chester County Tourist Bureau at 117 West Gay Street in downtown West Chester.

About the University

West Chester University's 385-acre campus provides students with modern classrooms and laboratories, an excellent library and comfortable dormitories. The University is within walking distance of downtown West Chester and public transportation into Philadelphia.

During the regular academic year, West Chester University enrolls some 8,600 students in its undergraduate programs and 1,300 students in graduate programs. Students may pursue associate, baccalaureate, and master's degrees as well as enroll in a number of certification and other non-degree programs.

Longwood Gardens

The beauty of world famous Longwood Gardens is at its peak during the summer months. Twenty indoor gardens in glass conservatories, 350 acres of outdoor gardens and woodlands, and spectacular illuminated fountain displays each Tuesday, Thursday, and Saturday night, make a trip here an event to remember. Visit on your own or join the bus trip sponsored by Recreational Services. For information about Longwood Gardens displays and events, call (215) 388-6741. For information on the West Chester University bus trip, call (215) 436-2133.

General Information

Housing

Housing on campus is available to summer graduate students. Comfortably appointed dormitories are conveniently located near the two primary student service facilities, Lawrence Center and Sykes Union Building. To apply for summer housing, write to

Housing Office
206 Sykes Union Building
West Chester University
West Chester, Pa. 19383
Telephone: (215) 436-3305

This written application should be received at least two weeks prior to the beginning of the session for which housing is desired.

Important Notes

- * The times and days of classes are subject to change.
- * Each summer session offering is contingent upon adequate enrollment in the judgment of University administration.
- * The catalog is not to be regarded as an irrevocable contract between the student and West Chester University.
- * Admission to a summer session does not imply admission for the academic year.
- * Students may have other persons register for them.

Academic Information

Accreditation

West Chester University is accredited by The Middle States Association of Colleges and Secondary Schools, The National Council for

Accreditation of Teacher Education, The National Athletic Training Association, The National Association of Schools of Music, The National League for Nursing, The American Chemical Society, the Commission on Accreditation in Clinical Chemistry, and the Joint Review Committee for Respiratory Therapy Education. West Chester University has been given program approval by the Department of Education of the Commonwealth of Pennsylvania for the certification of teachers.

How to Register

Students must register for all courses in any program by the registration deadlines for the session during which the courses begin, even for courses which start on dates other than the three session starting dates and which run for irregular periods.

Scheduling and Payment Period:

Monday through Friday (July 4 excepted) from April 14, 1986 through May 23, 1986 for Pre Session; through June 13, 1986 for Regular Session; and through July 25, 1986 for Post Session. Note: Earlier deadlines are in effect for registration by mail. See the registration schedule on the inside front cover.

Students may schedule and pay fees for any or all three summer sessions by meeting the appropriate deadlines.

Course scheduling cards for previously enrolled students (those active within the past two years) will be mailed in advance of the scheduling period. New or "inactive" students must file an application (no charge) for graduate study in the Office of Graduate Studies and Sponsored Research in order to obtain a course scheduling card.

SPECIAL NOTE: All students should consult with their departmen-

tal advisors for special scheduling instructions and obtain required approvals (signatures) as indicated.

Scheduling and Payment Procedures

1. Complete thoroughly and accurately the course scheduling card and obtain approvals (signatures) from the appropriate academic department.

2. Send or deliver completed course scheduling card to the Office of Graduate Studies and Sponsored Research. Cards that are not properly completed including the signature of the department's representative will be returned to the student and delay registration.

3. Students delivering course scheduling cards in person during the scheduling and payment period and within the deadlines specified under Calendar and Registration Schedule may complete their registration and pay fees for any or all summer sessions during one visit. Students should allow at least 30 minutes to complete the scheduling process.

4. Students who mail course scheduling cards so as to be received on or before May 16, 1986 for Pre Session; June 6, 1986 for Regular Session and July 18, 1986 for Post Session will be billed by mail. Cards received after these dates for the respective session will be returned to the student to be presented for in-person registration and payment of fees.

5. Students who do not meet the deadlines as outlined under Calendar and Registration Schedule must report in person during the appropriate Late Registration and pay the \$15.00 Late Registration Fee.

6. Students have completed registration only when their records have been entered on the University data base and all fees have been paid.



Brandywine Battlefield

Washington's courageous troops battled the British for control of strategic territory near Philadelphia in September 1777. Today you can tour the site of this famous Revolutionary War battle just 10 miles from West Chester and visit the two historic Quaker farmhouses which housed Generals Washington and Lafayette. Fascinating exhibits and exciting dioramas bring history to life. For more information call (215) 450-3342.

Course Changes

Course changes are made in the Office of the Registrar.

After the deadline dates for mail and in-person registration, the course change periods are

Pre Session: June 2, 1986

Regular Session: June 23 & 24, 1986

Post Session: August 4, 1986

Course changes may also be made before the scheduling deadline of a session.

For additional information see the calendar and registration schedule on the inside front and back covers.

Credits

Credits are usually earned at the rate of one semester hour each week of summer session. A student attending all three sessions normally earns 12 credits.

West Chester University students wishing to carry more than six semester hours in Regular Session must secure permission from their advisors.

Applying for Admission

For an application form and copy of the Graduate Catalog which contains information on admission requirements and West Chester University's graduate programs, call, write or come to

The Office of Graduate Studies and Sponsored Research

Old Library

West Chester University

West Chester, Pa. 19383

Telephone: (215) 436-2943

University Regulations and Policies

The class-absence policy for the academic year applies in summer. All academic policies are as noted in the Graduate Catalog.

Fees and Expenses

Special Notes:

- * Fees are subject to change without notice.
- * For more up-to-date information at any given time, contact the Student Accounts Office, (215) 436-2552.
- * All charges for a session must be paid by deadline payment dates or a late fee of \$15.00 will be incurred. Payments cannot be made on a deferred basis.
- * Fees may be paid by check or money order payable to: West Chester University. Your check or money order serves as your receipt. Graduate fees may also be paid by VISA or MasterCard.
- * IN-STATE AND OUT-OF-STATE GRADUATE STUDENTS PAY THE SAME BASIC FEE.

Basic Fee

\$89.00 per semester hour of credit.

Housing Fee

Room and Meals

Regular Session—\$390.00

Pre or Post Session—\$195.00

No reduction for absences of a few days

Private Room: \$19.00 extra per week

Community Center Fee

Pre or Post Session—\$1.00

Regular Session—\$2.00

Music Instruction Fee

Regular Session

Piano, Organ, Instrument or Voice, two half-hour lessons per week—\$45.00

Pipe Organ for Practice

Regular Session—\$12.00

Pre or Post Session—\$6.00

No charge for piano for practice

Rental of Band or Orchestral Instruments

Regular Session—\$6.00

Pre or Post Session—\$3.00

Late Registration Fee

A \$15.00 late registration fee is charged to students who fail to pay by the designated day of each session.

Basic Fee Refunds

All refund requests must be made in writing during the appropriate session. Contact the Office of the Registrar, Learning and Research Center.

Prior to and including the day of late registration for each session (Pre, Regular, and Post), students who completely withdraw from that session are entitled to a full refund. Students withdrawing after late registration, but before classes begin are entitled to a refund of all but \$10.00. Once classes begin and through the first week of Pre and Post sessions, students are entitled to a 50% refund. After the first week of Pre and Post sessions, no refund is permitted. During the first and second week of regular session, students who withdraw are entitled to a 50% refund. After the second week of regular session, no refunds are permitted.

There will be no refund of housing fees after classes begin; meal fee refunds are prorated on a weekly basis.

Christian C. Sanderson Museum

Christian C. Sanderson, a West Chester University graduate for whom Sanderson dormitory was named, was a lifelong friend of the Wyeth family and inveterate collector. Now a museum, his house, located on route 100 just north of route 1, is full of early Andrew Wyeth sketches, a Wyeth portrait of Sanderson, Battle of Brandywine and Civil War memorabilia, and hundreds of other unusual artifacts. The Christian C. Sanderson Museum is open Saturday and Sunday 1:00 to 4:30 p.m. Admission is free with a donation requested.

Graduate Programs of Study

Administration

M.S.A. (Concentrations: Economics/ Finance, Health Services, Leadership for Women, Psychology/ Personnel, Public Administration, Social Work, Sport and Athletic Administration, Urban/ Regional Planning)
Cooperative degree with Clinical Chemistry

Biology

M.A. in Biology
M.Ed. in Biology

Business

M.B.A. (Concentrations: Accounting, Economics, Finance, Management, Management Information Systems, Small Business Management)

Chemistry

M.Ed. in Chemistry
M.S. in General Chemistry; Clinical Chemistry
M.A. in Physical Science (Interdepartmental)

Childhood Studies and Reading

M.Ed. in Elementary Education (Concentrations: Bilingual Education, Children's Literature, Creative Teaching-Learning, Early Childhood Education, Elementary Education, Human Development, Language Arts, Mathematics, Reading, Science, Social Studies, Special Education)
Certification in Elementary Education
M.Ed. in Reading;
Reading Specialist Certification
Certificate of Advanced Graduate Study in Childhood Studies and Reading

Communicative Disorders

M.A. in Speech Pathology

Counselor, Secondary, and Professional Education

M.Ed. in Elementary Education
Counseling; Secondary Education
Counseling
M.S. in Higher Education Counseling; Educational Research
Specialist I Certificate in Counseling (Elementary or Secondary)
M.Ed. in Secondary Education (Academic concentrations: English, French,

German, History, Latin, Spanish, Biology, Mathematics)
M.Ed. in Secondary Education
Courses in Environmental Education: Urban Education

Criminal Justice

M.S. in Criminal Justice

Economics

M.S.A. (Concentration: Economics/ Finance)

English

M.A. in English
M.Ed. in English

Foreign Languages

M.Ed. in French; Spanish; German; Latin
M.A. in French; Spanish

Geography—See Government and Planning

Geology and Astronomy

M.A. in Physical Science (Interdepartmental)

Government and Planning

M.A. in Political Science; Geography
M.S.A. (Concentrations: Leadership for Women, Public Administration, Urban/ Regional Planning)

Health

M.Ed. in Gerontology: Public Health; School Health
M.S. in Environmental Health; Gerontology; Public Health; School Health; Administration (Concentration: Health Services)
Certificate program in Gerontology

History

M.A. in History
M.Ed. in History

Instructional Media

M.Ed. in Instructional Media Education
M.S. in Instructional Media
Teaching Certification for Instructional Media Education

Leadership for Women

M.S.A. (Concentration: Leadership for Women)

Mathematical Sciences

M.A. in Mathematics (Concentrations: Pure Mathematics, Mathematics Education, Applied Computer Science)
M.Ed. in Mathematics
M.S. in Computer Science

Music

M.A. in Music History
M.M. in Accompanying; Keyboard Performance; Piano Pedagogy
M.M. in Music Education
M.M. in Instrumental Performance
M.M. in Music Theory/ Composition
M.M. in Vocal/ Choral Performance

Philosophy

M.A. in Philosophy

Physical Education

M.Ed. in Health and Physical Education
M.S. in Physical Education; Administration (Concentration: Sport and Athletic Administration)

Physical Science

(Interdepartmental)

M.A. in Physical Science (Concentrations: Chemistry, Geology, Astronomy, Physics)

Physics

M.A. in Physical Science (Interdepartmental—See Physical Science)

Political Science—See

Government and Planning

Psychology

M.A. in Clinical Psychology; General Psychology; Industrial/ Organizational Psychology; Social Science (Concentration: Psychology)
M.S.A. (Concentration: Psychology/ Personnel)

Public Administration—See Government and Planning

Social Work

M.S.A. (Concentration: Social Work)

Special Education

M.Ed. in Special Education

Teaching English as a Second Language

M.A. in Teaching English as a Second Language

The following departments and interdisciplinary areas offer graduate courses, but no graduate degree.

Anthropology and Sociology
Art
Ethnic Studies
Linguistics
Speech Communication and Theatre
Women's Studies

Brandywine River Museum

Enjoy one of the largest public collections of America's most popular artistic families. Three generations of Wyeths—N.C., Andrew, and Jamie—plus many other local artists including Horace Pippin, Howard Pyle, George Cope, and Frank Schoonover, are represented in the permanent exhibit of the Brandywine River Museum located seven miles south of West Chester. Of special interest during summer 1986 will be "The Golden Age of the American Poster," an exhibition of 100 years of American poster art. Students receive a 50% discount on the price of admission. For more information, call (215) 459-1900.

Pre Session Offerings

Monday, June 2 through Friday, June 20

Unless otherwise noted, classes meet Monday through Friday

Key

* Meets General Education Requirements

W Writing Emphasis

S Additional Fee Required

M Majors Only

P Permission of Instructor

I Individualized Learning System

Art

5:00-9:00 p.m.

- ART 531-21 Ceramics I (3) Monday through Thursday
- ART 532-21 Ceramics II (3) Monday through Thursday
- ART 533-21 Ceramics: Studio Problems (3) Monday through Thursday
- ART 534-21 Ceramics: Independent Projects (3) Monday through Thursday

Biology

Internships, independent study, and thesis credits in biology are to be arranged for by contacting the biology chairman.

Chemistry

TBA

- CHE 550-21 Internship in Chemistry (3) M,P
- CHE 550-22 Internship in Chemistry (5) M,P
- CHE 610-21 Advanced Independent Study Thesis Research (3) M,P

Childhood Studies and Reading

4:30-8:00 p.m.

- EDE 543-21 Creative Expression in the Elementary School (3)
- EDE 598-21 Workshop in Elementary Education: Enhancing Creative and Critical Listening Skills (1) June 2-5 See workshop description

- EDE 598-22 Workshop in Elementary Education: Assertive Relations with Children (1) June 9-12 See workshop description
- EDE 598-23 Workshop in Elementary Education: Writing Assignments Across the Curriculum (1) June 16-19 See workshop description

4:30-8:00 p.m.

- EDR 510-21 Foundations of Reading Instruction (3)
- EDR 521-21 Reading Clinic Practicum and Seminar I (3)
- EDR 540-21 Seminar in Reading (3)

Counselor, Secondary, and Professional Education

4:45-7:00 p.m.

- EDC 567-21 Group Dynamics (3) Monday, June 2, then Tuesday through Thursday, June 3-July 2
- EDC 571-21 Theories of Counseling (3) Monday, June 2, then Tuesday through Thursday, June 3-July 2

6:00-9:30 p.m.

- EDF 510-21 Educational Foundations (3)
- EDP 550-21 Advanced Educational Psychology (3)
- EDF 598-21 Workshop in Secondary Education: Communicative Skills for Teachers (3) See workshop description

7:15-9:30 p.m.

- EDC 520-21 Counseling for Human Differences (3) Monday, June 2, then Tuesday through Thursday, June 3-July 2
- EDC 530-21 The College Student (3) Monday, June 2, then Tuesday through Thursday, June 3-July 2
- EDC 556-21 Career Development Theories and Practices (3) Monday, June 2, then Tuesday through Thursday, June 3-July 2
- EDC 585-21 Contemporary Issues and Trends in Guidance (3) Monday, June 2, then Tuesday through Thursday, June 3-July 2

English

8:00 a.m.-12:00 Noon

- ENG 520-21 18th-Century Poetry and Prose (3)

8:45 A.M.-4:30 P.M.

- ENG 509-21 Workshop in English: Holistic Assessment (1) S

Foreign Languages

9:00 a.m.-12:00 Noon

- LAN 504-21 Use of Media in Language Teaching (3)

TBA

Classical Languages Majors Program (3-o) See workshop description
French Majors Program (3-o) See workshop description
German Majors Program (3-o) See workshop description
Self-Instructional Language Program: Chinese, Japanese, etc. (3-o) See workshop description
Spanish Majors Program (3-o) See workshop description

Geography

TBA

- GEO 615-21 Internship in Urban and Regional Planning (3)

Geology and Astronomy

6:00-9:30 p.m.

- ESS 530-21 Principles of Oceanography (3) Monday through Thursday

John Turner, a sought after authority on the Constitution, will be teaching a seminar **The Constitution: That Delicate Balance** (HIS 650) during Pre Session. The seminar will examine such current constitutional issues as abortion, criminal rights, and freedom of the press. Dr. Turner recently completed a series of breakfast seminars on constitutional issues for chief executive officers of local businesses.

Health

TBA

- HEA 535-32 Health Workshop: Hazardous Materials in the Community (3)

History

6:00-9:30 p.m.

- HIS 650-21 Seminar in American History: The Constitution: That Delicate Balance (3) Monday through Thursday

TBA

- HIS 690-21 Independent Studies in History (3) Permission of chairperson required
HIS 691-21 Thesis (3) P Permission of chairperson required
HIS 691-22 Thesis (6) P Permission of chairperson required

Instructional Media

6:00-9:30 p.m.

- EDM 505-21 Theory of Motion Picture Production (3) Monday through Thursday

Mathematical Sciences

8:00 a.m.-12:00 Noon

- CSC 501-21 Introduction to Computers (Literacy) (3)
MTE 501-21 Fundamental Concepts of Mathematics I (3)
MTE 553-21 Teaching Elementary School Mathematics (3)

5:00-8:45 p.m.

- CSC 550-22 Computers in Education (3) Registration: Requires permission of Dr. Kerrigan (3) Monday through Thursday

6:00-9:45 p.m.

- CSC 501-22 Introduction to Computers (Literacy) (3) Monday through Thursday
CSC 550-21 Computers in Education (3) Monday through Thursday

Music

Music Education

8:00 a.m.-12:00 Noon

- MUE 511-21 Vitalizing Music in the Elementary School (3)

Music History

8:00 a.m.-12:00 Noon

- MHL 521-21 Music History I (3) (Pending CAPC approval)
MHL 522-21 Music History II (3) (Pending CAPC approval)

Music Theory and Composition

TBA

- MWJ 539-21 Jazz Studies Workshop (2) June 16-20. Special fee. Register through workshop director only. Do not use regular registration procedure or permit-to-register cards. See workshop description
MWJ 539-22 Jazz Studies Workshop (3) June 16-20. Special fee. Register through workshop director only. Do not use regular registration procedure or permit-to-register cards. See workshop description

Physical Education

6:00-9:30 p.m.

- PED 552-21 Learning on the Move (3)
PED 604-21 Administration and Supervisory Practices for Health, Physical Education, Recreation and Athletics (3)
PED 662-21 Problems in Traffic and Driver Education (3)
PED 680-21 Scientific Principles of Coaching (3) Also USSF National Coaching Course

Physics

TBA

- PHS 502-21 Independent Studies (1)
PHS 592-22 Independent Studies (2)
PHS 592-23 Independent Studies (3)

Psychology

4:00-7:15 p.m.

- PSY 517-21 Psychopathology (3) Tuesday through Thursday, June 2-July 3
PSY 549-21 Introduction to Projective Techniques (3) Tuesday through Thursday, June 2-July 3

7:00-10:30 p.m.

- PSY 490-21 Topical Seminar in Psychology: Psychodrama (3) Tuesday through Thursday, June 2-July 3
PSY 504-21 Research Methodology and Statistics II (3) Tuesday through Thursday, June 2-July 3
PSY 506-21 Theories of Learning (3) Tuesday through Thursday, June 2-July 3
PSY 524-21 Psychometrics (3) Tuesday through Thursday, June 2-July 3
PSY 595-21 Clinical Psychology: Child/Adolescent (3) Tuesday through Thursday, June 2-July 3

Political Science

6:00-10:00 p.m.

- ADM 505-21 Organizing Human Resources (3)

TBA

- ADM 612-21 Internship in Administration (3)

Special Education

4:00-7:00 p.m.

- EDA 541-21 Psychology of Exceptional Children (3)
EDA 571-21 Childhood Learning Disabilities (3)



The People's Light and Theatre Company

Located in Malvern, The People's Light and Theatre Company is the official professional theatre of Chester County. Summer 1986 productions will include *Summerfolk* by Maxim Gorky, a Russian classic; *Inherit the Wind* by Jerome Lawrence and Robert E. Lee, an American drama based on the famous Scopes trial; and *Kabuki Othello*, the world premiere of an adaptation by the internationally renowned Shozo Sato and Lee Devin. Mr. Sato will be in residence at People's Light for the *Kabuki Othello* and will appear in solo concert in some of the performances. Student rates are offered. For more information, call 644-3500.

Regular Session Offerings

Monday, June 23 through Friday, August 1
Holiday—Friday, July 4

Unless noted otherwise, classes meet Monday through Friday.

Key

* Meets General Education Requirements

W Writing Emphasis

\$ Additional Fee Required

M Majors Only

P Permission of Instructor

I Individualized Learning System

Art

9:30–11:00 a.m.

ART 546-31 Drawing: Independent Projects (3)

11:00 a.m.–12:30 p.m.

ART 516-31 Painting I (3)

ART 517-31 Painting II (3)

ART 520-31 Painting: Independent Projects (3)

5:00–9:00 p.m.

ART 531-31 Ceramics I (3) Monday through Thursday, June 23–July 10

ART 532-31 Ceramics II (3) Monday through Thursday, June 23–July 10

ART 533-31 Ceramics: Studio Problems (3) Monday through Thursday, June 23–July 10

ART 534-31 Ceramics: Independent Projects (3) Monday through Thursday, June 23–July 10

Biology

7:00–9:30 p.m.

BIO 556-31 Virology (3) Monday through Wednesday

Internships, independent study, and thesis credits in biology are to be arranged for by contacting the Biology chairman.

Business Administration

6:00–9:45 p.m.

MGT 501-31 Management and Organization Theory (3) Tuesday and Thursday

MGT 502-31 Business Communications (3) Monday and Wednesday

MKT 501-31 Marketing Management (3) Monday and Wednesday

Chemistry

10:00 a.m.–12:00 Noon

CHE 505-31 Fundamental Topics in Chemistry (Nutrition) (3) Tuesday through Thursday, July 7–August 8

TBA

CHE 550-31 Internship in Chemistry (3) M, Permission of Chairman

CHE 550-32 Internship in Chemistry (5) M, Permission of Chairman

CHE 610-31 Advanced Independent Study/Thesis Research (3) M, Permission of Chairman

Childhood Studies and Reading

8:00–9:30 a.m.

EDE 530-31 Social Studies in Elementary Education (3)

EDR 510-31 Foundations of Reading Instruction

EDR 514-31 Reading in the Content Areas: Elementary (3)

8:00 a.m.–5:30 p.m.

EDE 580-31 Workshop in Elementary Education (3) OCL July 14–18 Dr. George Maxim

EDE 580-32 Workshop in Elementary Education (3) OCL July 28–August 1 Dr. George Maxim

EDE 581-31 Workshop in Elementary Education II (3) OCL July 21–25 Dr. George Maxim

9:30–11:00 a.m.

EDE 502-31 Introduction to Early Childhood Education (3)

EDE 548-31 Curriculum Theory and Trends in Elementary Education

EDE 551-31 Child Development and Behavior I (3)

EDE 589-31 Workshop in Humanizing Teaching and Learning (3)

EDR 522-31 Reading Clinic Practicum and Seminar II (3)

11:00 a.m.–12:30 p.m.

EDE 504-31 Early Childhood Programs (3) Focus on Preschool

EDE 522-31 Teaching the Communication Skills (3)

EDE 560-31 Meeting Individual Needs of Children (3)

EDR 541-31 Organization and Operation of Reading Programs: K–12 (3)

Communicative Disorders

10:30 a.m.–1:00 p.m.

SPP 551-31 Graduate Clinical Practicum

1:00–3:15 P.M.

SPP 523-31 Voice Disorders (3) Monday, Tuesday, Wednesday

3:45–6:00 p.m.

SPP 526-31 Articulation Disorders (3) Monday, Tuesday, Wednesday

6:30–8:45 p.m.

SPP 561-31 Seminar in Audiology (3) Monday, Tuesday, Wednesday

TBA

SPP 552-31 Affiliation Practicum (6)

An authority on 20th century Irish writers, Joseph Browne, will be teaching Joyce and Beckett (ENG 540) during Regular Session. Dr. Browne is sought after as a lecturer at universities, colleges, and literary conferences throughout the United States, Canada, and Ireland on a wide range of Irish and Irish-American subjects. He has published more than 100 scholarly papers, feature articles, and reviews for publications ranging from *Eire-Ireland* and the *Canadian Journal of Irish Studies* to *The New Republic*, the *Washington Post*, and the *Philadelphia Inquirer*

Counselor, Secondary, and Professional Education

8:00-9:30 a.m.

- EDF 500-31 Methods and Materials of Research in Education (3)
EDF 501-31 Methods and Materials of Research for Elementary Education (3)

9:30-11:00 a.m.

- EDF 510-31 Educational Foundations (3)
EDP 569-31 Adolescent Development and Learning (3)

12:00 Noon-3:00 p.m.

- EDP 598-31 Workshop in Educational Psychology: Stress Management and Burn-out Avoidance (3) June 23 to July 25 Tuesday through Thursday

4:45-7:00 p.m.

- EDC 503-31 Introduction to Guidance Services (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31
EDC 531-31 Introduction to Counseling in Higher Education (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31
EDC 572-31 Counseling and Consultative Techniques in Elementary School (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31
EDC 573-31 Counseling and Consultative Techniques in Secondary School (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31
EDC 578-31 Counseling Techniques with Adults (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31

7:15-9:30 p.m.

- EDC 574-31 Group Procedures in the Elementary School (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31
EDC 575-31 Group Procedures in the Secondary School (3) Monday, June 23, then Tuesday through Thursday, July 1-July 31
EDC 579-31 Group Procedures with Adults (3) Monday, June 23, then Tuesday through Thursday, July 9-August 8

Criminal Justice

6:30-9:30 p.m.

- CRJ 587-31 Ethical Issues in Criminal Justice (3)

Economics

6:00-9:30 p.m.

- FIN 501-31 Financial Management (3) Monday and Wednesday

English

8:00-9:30 a.m.

- ENG 540-21 Joyce and Beckett (3)

9:00 a.m.-3:00 p.m.

- ENG 598-31 English Workshop: Advanced Institute on Computers and Writing (4) \$ July 21-August 1
ENG 599-31 Workshop in English: The Process-Centered Writing Class (1) \$ June 25-June 27
ENG 599-32 Workshop in English: Writing in the Content Area (1) \$ June 30-July 2

9:00 a.m.-4:30 p.m.

- ENG 597-31 Seminar for Master Teachers (6) \$ June 23-July 18

9:30-11:00 a.m.

- ENG 527-31 17th-Century Poetry and Prose (3)

9:30 a.m.-12:30 p.m.

- ENG 599-33 Workshop in English: Strategies for Teaching Writing (3) June 30-July 11
ENG 599-34 Workshop in English: Strategies for Teaching Writing (3) June 30-July 11

11:00 a.m.-12:30 p.m.

- ENG 579-31 Studies in American English

6:00-9:45 p.m.

- ENG 534-31 Victorian Poetry and Prose (3) Tuesday and Thursday

Foreign Languages

TBA

- Classical Languages Majors Program (3-6)—See workshop description
French Majors Program (3-6)—See workshop description

German Majors Program (3-6)—See workshop description
Self-Instructional Language Program (3-6)—See workshop description
Spanish Majors Program (3-6) See workshop description

Geography

9:30-11:00 a.m.

- GEO 545-31 Geography of Europe (excluding the U.S.S.R.) (3)

6:00-10:00 p.m.

- GEO 546-31 Soviet Union (3) Monday and Wednesday
ADM 502-31 Computers for Managers (3) Monday and Wednesday

TBA

- GEO 615-31 Internship in Urban and Regional Planning (6)

Geology and Astronomy

11:00 a.m.-12:30 p.m.

- SCE 595-21 Elementary School Science Instruction (3) Monday through Thursday

6:00-9:30 p.m.

- SCE 501-21 Modern Trends in Teaching Earth and Space Science (3) Monday and Wednesday

Health

8:30 a.m.-4:30 p.m.

- HEA 535-31 Health Workshop: Human Sexuality (3) June 25-July 1
HEA 535-32 Health Workshop: Human Sexuality (3) July 9-July 15
HEA 535-33 Health Workshop: Personal Protective Equipment (3) July 17-July 23

9:30-11:00 a.m.

- HEA 606-31 Research Project Seminar I (2)
HEA 607-31 Research Project Seminar II (2)
HEA 608-31 Thesis Seminar (3)
HEA 610-31 Thesis (3)
HEA 611-31 Field Placement (3)

Sterling Murray, a specialist in 18th century music who has published numerous papers and books on both American and European music will teach a seminar in **The Arts in Early America** (MHL 679) June 22—July 11, 1986. American culture will be the setting for a study of the relationships among literature, painting, dance, and music in the period between the landing of the Pilgrims and the end of the Civil War. Music will serve as the focal point for comparison with the other arts. No background in music is required.

History

TBA

- HIS 690-31 Independent Studies in History (3) Permission of chairperson required
HIS 691-31 Thesis (3)
HIS 691-32 Thesis (6)

Instructional Media

8:00–9:30 a.m.

- EDM 533-31 Basic TV Production I (3)

9:30–11:00 a.m.

- EDM 525-31 Basic Photography (3)

11:00–12:30 p.m.

- EDM 590-31 Internship Instructional Media (3)

6:00–9:00 p.m.

- EDM 501-31 Orientation to Instructional Media (3)

Mathematical Sciences

8:00–9:30 a.m.

- CSC 505-31 Introduction to Computer Science (PASCAL) (3)
CSC 515-31 Introduction to Computer Programming (STR BASIC) (3)
MTE 501-31 Fundamental Concepts of Mathematics I (3)
MTE 560-31 Teaching Algebra in the Secondary School (3)

9:30–11:00 a.m.

- CSC 501-31 Introduction to Computers (Literacy) (3)
CSC 505-32 Introduction to Computer Science (PASCAL) (3)
CSC 550-31 Computers in Education (3) Registration requires permission of Dr. Kerrigan
MTE 502-31 Fundamental Concepts of Mathematics II (3)
CSC 550-32 Computers in Education (3) Registration requires permission of Dr. Kerrigan

11:00 a.m.–12:30 p.m.

- CSC 505-33 Introduction to Computer Science (PASCAL) (3)
MTE 507-31 Current Trends in Teaching Mathematics (3)
MTE 553-31 Teaching Elementary School Mathematics (3)

6:00–9:30 p.m.

- CSC 501-32 Introduction to Computers (Literacy) (3) Monday and Wednesday
CSC 506-31 Applied Software (Data Structures) (3) Monday and Wednesday
CSC 561-31 Simulation (3) Monday and Wednesday

5:30–10:00 p.m.

- CSC 508-31 Computer Organization (3) Tuesday and Thursday

6:00–9:30 p.m.

- CSC 515-32 Introduction to Computers (STR BASIC) (3) Tuesday and Thursday
CSC 571-31 Computer Graphics (Micro Oriented) (3) Tuesday and Thursday

TBA

- MAT 599-31 Independent Study (3)

Music

Instrumental Music

Private Instrumental Lessons

- Prefixes: BAR, BAS, BSN, CLT, FLU, FRH, GTR, OBO, PER, SAX, TBA, TPT, TRB, VCL, VLA, VLN
501-502 Minor Lesson (1)
511-514 Major Lesson (1)
541-545 Advanced Lesson (2)

11:00 a.m.–12:30 p.m.

- AIC 512-31 Advanced Instrumental Conducting (2) June 23–July 11

2:00–3:30 p.m.

- AEB 521-31 Concert Band (1) June 23–July 11

TBA

- AES 511-31 Instrumental Ensemble (2) I
AIM 696-31 Recital Instrumental (1) I
AIM 697-31 Recital Instrumental (2) I

Keyboard Music

9:00 a.m.–4:30 p.m.

- MWP 539-31 Piano Workshop Topic: Methods and Materials (3) \$ June 23–27 Register through Workshop Director

By Appointment

- PIA 501-502 Piano Minor Private Lesson (1) \$
PIA 511-514 Piano Major Private Lesson (2) \$

Music Education

8:00–11:00 a.m.

- MUE 500-31 Methods and Materials of Research (3) July 15–August 1
MUE 503-31 Philosophical Foundations of Music Education (3) June 23–July 12

8:00 a.m.–12:00 Noon

- MUE 530-31 Orff-Schulwerk—Level I (4) June 23–July 12
MUE 532-31 Orff-Schulwerk—Level III (4) June 23–July 12

TBA

- MUE 691-31 Research Seminar in Music (2)
MUE 692-31 Research Seminar in Music (1)
MUE 698-31 Research Report (1)

Music History

8:00–11:00 a.m.

- MHL 657-31 History of Chamber Music (3) July 14 to August 1
MHL 679-31 Seminar in Music History I (The Arts in Early America) (3) June 22 to July 11
MHL 699-31 Thesis in Music History (3)

TBA

- MHL 680-31 Special Subjects Seminar II: The History of Jazz on Film (3) June 30–July 3 See workshop descriptions
MHL 680-32 Seminar in Music History II: Computer Applications in Music History (3) July 7–11 See workshop descriptions

Music Theory and Composition

8:00–9:30 a.m.

- MTC 550-31 Acoustics of Music (3)

Vocal and Choral Music

8:30 a.m.–4:30 p.m.

- VOC 539-31 Vocal-Choral Music Workshop: Show Choir (3) \$ June 29–July 3

Valley Forge National Historical Park

The bitter winter of 1777-1778 was perhaps the lowest point of the American Revolution as thousands of soldiers died of hunger, exposure, and disease without fighting a battle. Today the site of the Continental Army encampment is a splendid 2,800 acre park offering trails for walking, jogging or bicycling; guided tours of Washington's headquarters, the soldiers' huts, and earthen fortification; and films and exhibits explaining this important part of American history. For more information, call (215) 783-1076.



12:30-2:00 p.m.

CHO 511-31 Masterworks Chorus (1)
June 23-July 11

By Appointment

VOI 501-502 Voice minor—private
lesson (1) \$
VOI 511-514 Voice major—private
lesson (1) \$

Physical Education

8:00-9:30 a.m.

PED 585-31 Biomechanics (3)
PED 601-31 Statistical Design for Research
and Evaluation in Physical
Education (3)

9:30-11:00 a.m.

PED 602-31 Philosophical Foundations of
Physical Education (3)
PED 606-31 Research Project Seminar I (2)
PED 607-31 Research Project Seminar II (2)
PED 608-31 Thesis Seminar (3)
PED 610-31 Thesis (3)

6:00-8:00 p.m.

PED 686-31 Organization and Manage-
ment of Adult Fitness Pro-
grams—Clinic/Seminar (3)
Monday through Thursday

6:00-9:30 p.m.

PED 561-31 Seminar in the Four-Phase
Program of Driver Education
(3) Monday through Thursday

TBA

PED 598-31 Physical Education Workshop
(1) Prior approval. See work-
shop description
PED 598-32 Physical Education Workshop
(2) Prior approval. See work-
shop description
PED 598-33 Physical Education Workshop
(3) Prior approval. See work-
shop description

Physics

TBA

PHS 592-31 Independent Studies (1)
PHS 592-32 Independent Studies (2)
PHS 592-33 Independent Studies (3)

Political Science

6:00-10:00 p.m.

PAD 561-31 State and Local Government
(3) Tuesday and Thursday
ADM 501-31 Administrative Theory and
Environment (3) Monday and
Wednesday
ADM 505-31 Organizing Human Resources
(3) Tuesday and Thursday

TBA

PSC 600-31 Research Report (3)
ADM 612-31 Internship in Administration (6)

Psychology

4:00-7:15 p.m.

PSY 505-31 Advanced General Psychol-
ogy (3) Tuesday through
Thursday July 7-August 7
PSY 559-31 Psychotherapy (3) Tuesday
through Thursday July 7-
August 7

7:00-10:30 p.m.

PSY 445-31 Organizational Development
(3) Tuesday through Thurs-
day, July 7-August 7
PSY 527-31 Behavior Modification (3)
Tuesday through Thursday
July 7-August 7
PSY 544-31 Individual Psychometric
Techniques (3) Tuesday
through Thursday
July 7-August 7

Social Work

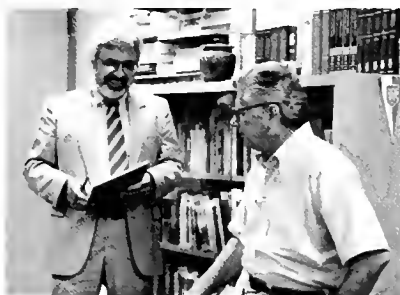
6:00-9:30 p.m.

SWO 520-31 Theory for Social Work
Practice (3)

Speech Communication and Theatre

11:00 a.m.-12:30 p.m.

SPC 515-31 General Semantics (3)



Bernard Oldsey, author of numerous books including *Hemingway's Hidden Craft* and *The Spanish Season* (a novel), will teach **American Literary Movements** (ENG 547) during Post Session. Editor of the national literary journal, *College Literature*, Dr. Oldsey has a new book on George Orwell scheduled for publication in spring of 1986. This summer's course will deal with the rise of modernist fiction in the United States.

Post Session Offerings

Monday, August 4 through Friday, August 22

Unless noted otherwise, classes meet Monday through Friday. Classes which meet from 8:00 a.m. to 12:00 Noon have a break from 9:30 to 10:30 a.m.

Key

- * Meets General Education Requirements
- W Writing Emphasis
- \$ Additional Fee Required
- M Majors Only
- P Permission of Instructor
- I Individualized Learning System

Biology

Internships, Independent study, and thesis credits in biology are to be arranged for by contacting the biology chairman.

Chemistry

TBA

- CHE 550-41 Internship in Chemistry (3) M, Permission of chairman
- CHE 550-42 Internship in Chemistry (5) M, Permission of chairman
- CHE 610-41 Advanced Independent Study/Thesis Research (3) M, Permission of chairman

Childhood Studies and Reading

8:00 a.m.-12:00 Noon

- EDE 580-41 Workshop in Elementary Education: Constructing Activity-Oriented Teaching Materials (3) See workshop description

8.30 a.m.-5:30 p.m.

- EDE 580-42 Workshop in Elementary Education I (3) OCL August 4-8, Dr George Maxim
- EDE 583-41 Workshop in Creativity/Workshop in Gifted and Talented (3) OCL August 4-8, Dr. E. Riley Holman

- EDE 583-42 Workshop in Creativity/Workshop in Gifted and Talented (3) OCL August 11-15, Dr. E. Riley Holman
- EDG 588-41 Workshop in Creativity/Workshop in Gifted and Talented (3) OCL August 4-8, Dr. E. Riley Holman
- EDG 588-42 Workshop in Creativity/Workshop in Gifted and Talented (3) OCL August 11-15, Dr. E. Riley Holman

Counselor, Secondary, and Professional Education

8:00 a.m.-12:00 Noon

- EDF 509-41 Contemporary Teaching Trends (3)
- EDF 510-41 Educational Foundations (3)

English

8:00 a.m.-12:00 Noon

- ENG 547-31 American Literary Movements: Rise of Modernist Fiction in the United States (3)

Geography

TBA

- GEO 615-41 Internship in Urban and Regional Planning (3)

History

TBA

- HIS 690-41 Independent Studies in History (3) P Permission of chairperson required
- HIS 691-41 Thesis (3)
- HIS 691-42 Thesis (6)

Instructional Media

8:00 a.m.-12:00 Noon

- EDM 563-41 Field Study of Media Programs (3)

Mathematical Sciences

8:00 a.m.-12:00 Noon

- CSC 501-41 Introduction to Computers (Literacy) (3)

6:00-10:00 p.m.

- CSC 501-42 Introduction to Computers (Literacy) (3)
- CSC 531-41 Operating Systems (3)

Music

Instrumental Music

9:00 a.m.-5:00 p.m.

- MWB 539-41 Marching Band Workshop (3) August 4-8, See workshop description

Physical Education

9:00 a.m.-12:30 p.m.

- PED 682-41 Biodynamics of Human Performance (3) (Also USSF National Coaching Course ONLY)

Political Science

6:00-10:00 p.m.

- ADM 506-41 Budgeting and Fiscal Management (3) Monday through Thursday

TBA

- ADM 612-41 Internship in Administration (3)

Hopewell Village

Iron production was a major industry in Chester County prior to revolutionary days. Hopewell furnace, built in 1771, helped meet patriot needs for armaments and ammunition and reached its peak during the mid-1830's. Today Hopewell Village is a National Historic Site reconstructed to demonstrate not just the industrial process but the life of the working community as well. During July and August demonstrations of village trades and crafts are presented to supplement the tape recorded walking tour. For more information, call (215) 582-8773.



WORKSHOPS

Childhood Studies and Reading

Workshop in Elementary Education: Constructing Activity-Oriented Teaching Materials

EDE 580-3 Credits
Post Session

A workshop experience for teachers interested in exploring the many facets of making activity-oriented learning materials for the classroom. Dr. Zimmerman will work with creative arts, creative drama, and puppetry for use with children. Professor Dunlap will provide experiences with construction of learning centers and enrichment and reinforcement materials for the academic areas. For more information, contact Mr. Scott Dunlap, (436-2770) or Dr. Connie Zimmerman, (436-3323) West Chester University, West Chester, PA 19383

Workshops in Elementary Education

EDE 598-1-3 Credits
Pre Session

This workshop will be offered in three mini-sessions, each equivalent to 1 semester hour. A student may elect to take one, two, or three of these sessions.

Week 1: June 2-5 Section 21—Enhancing the Creative and Critical Listening Skills

Experience, design and practice strategies for the improvement of these basic and long-underused language arts skills. For more information, contact Dr. Patricia Grasty-Gaines, West Chester University, West Chester, PA 19383, telephone (215) 436-2393.

Week 2: June 9-12 Section 22—Assertive Relations with Children

The principles of assertiveness training adapted to adult-child relationships. Positive approaches to classroom discipline, combining caring and guiding. For more information, contact Dr. Joan Hasselquist, West Chester University, West Chester, PA 19383, telephone (215) 436-2280.

Week 3: June 16-19 Section 23—Writing Assignments Across the Curriculum

The workshop will deal with ways to use writing as a valuable tool for learning for all students. Workshop participants will prepare writing activities for language arts and other areas of the curriculum. For more information, contact Dr. James Habecker, West Chester University, West Chester, PA 19383, (215) 436-2282

Workshop in Humanizing Teaching and Learning

EDE 580-3 Credits
Regular Session

The primary emphasis is on the development of human relations skills. Feelings and attitudes of learners and teachers are examined as they relate to classroom performance. Opportunity is given for the development of new skills and behaviors relative to enhancing of students' self-esteem. Other areas studied are roles of sexism and ethnic and racial stereotyping. This course is applicable to teachers, kindergarten through college level. For more information, contact Dr. Joan Hasselquist, West Chester University, West Chester, PA, 19383, telephone (215) 436-2280.

Counselor, Secondary, and Professional Education

Workshop in Secondary Education: Communicative Skills for Teachers

EDF 598-3 Credits
June 2-20

This workshop focuses on the teacher-to-student and the teacher-to-parent communicative relationships. An examination of classroom problems leads to a discussion of problem prevention. Strategies to be used in each participant's classroom will be emphasized. Strategies dealing with other communicative areas will be explored. For more information, contact Dr. Harry H. Deischer, West Chester University, West Chester, PA, 19383, telephone (215) 436-2411.

Workshop in Educational Psychology: Stress Management and Burn-Out Avoidance

EDP 598-3 Credits
June 23-July 25 (Tuesday, Wednesday, Thursday only)

This workshop will use group exploration to identify problems encountered in teaching. Particular attention will be devoted to stress management, burn-out avoidance, understanding and reducing negative behavior in the classroom, working successfully with peers and administration, and learning to live happily with oneself. For more information, contact Dr. Wallace Kahn, West Chester University, West Chester, PA 19383, telephone (215) 436-2107.

English

For more information on any of the Pennsylvania Writing Project Workshops, call or write Dr. Robert Weiss, Department of English, West Chester University, West Chester, PA, telephone (215) 436-2297.

Pennsylvania Writing Project/ Workshop in English: Holistic Assessment of Writing

ENG 500-21-1 Credit
June 18-19

Fee: \$25.00 plus course fee

Participants will be introduced to the theory and practice of rapid and reliable assessment of large numbers of writing samples as used in schools and colleges. Several systems of holistic scoring will be examined in relation to the functions of diagnosis, placement, ranking, exit proficiency, and program evaluation. Course meets two days from 8:45 a.m. to 4:30 p.m.

Pennsylvania Writing Project/ Workshop in English: Strategies for Teaching Writing

ENG 500-33-2 Credits
ENG 599-34-3 Credits

June 30-July 11
Fee: Tuition

Like the invitational Summer Institute, this three-week course is designed for teachers of writing at all levels. The course meets daily from 9:30 a.m. to 12:30 p.m. and is coordinated and taught by a team of Writing Project staff and teacher consultants. Participants write, review approaches to the teaching of writing, study research in the field, and hear guest speakers from the Summer Institute. Three-credit participants complete an independent project.

Pennsylvania Writing Project/ Summer Institute (Invitational) Seminar for Master Teachers

ENG 597-31-6 Credits
June 23-July 18
Fee: \$750.00

Experienced and talented teachers of writing are invited as summer fellows of the Pennsylvania Writing Project. The institute meets all day, five days a week, for four weeks. Fellows examine problems in the teaching of writing, study research in the field, and write papers in various modes and from different points of view, including a position paper on the teaching of writing. Nationally recognized experts offer presentations each week. At the conclusion of the



Colonial Pennsylvania Plantation

Interested in how people lived during the 18th century? Visit the Colonial Pennsylvania Plantation just eight miles east of West Chester. Very much the same as it was in William Penn's day, the Colonial Pennsylvania Plantation is a working farm typical of southeastern Pennsylvania during the 1770's. Watch the farmer, his wife, and their helpers go about their daily chores. Enjoy the farm animals which are all close to the types existing in the 18th century. Participate in the activities of the farm. Public transportation available. For more information call (215) 566-1725.

Summer Institute, the fellows become teacher/consultants of the Pennsylvania Writing Project. Participation by invitation only.

Pennsylvania Writing Project/ Workshop in English: The Process- Centered Writing Class

ENG 599-31—1 Credit

June 25-27

Fee: \$25.00 plus course fee

This workshop, designed to deepen teachers' understanding of the writing process, is coordinated and taught by a team of Writing Project staff and teacher/consultants and internationally recognized experts from the National Writing Project.

Participants write, review approaches to the teaching of writing, study research in the field, hear guest speakers, and share ideas and concerns. The course meets from 9:00 a.m. to 12:00 Noon, and 1:00 to 3:00 p.m.

Pennsylvania Writing Project/ Workshop in English: Writing in the Content Areas

ENG 599-32—1 Credit

June 30-July 2

Fee: \$25.00 plus course fee

Participants will explore ways of motivating students to write about academic areas, designing effective assignments, and using writing process methods to improve learning in all subjects. Topics include learning-centered writing, evaluation, and classroom management of writing. Workshop leaders will be assisted by guest speakers who are successful content area teachers, K-university. The course meets from 9:00 a.m. to 12:00 Noon, and 1:00 to 3:00 p.m.

Pennsylvania Writing Project/ English Workshop: Advanced Institute on Computers and Writing

ENG 598-31—4 Credits

July 21-August 1

Fee: \$80.00 plus course fee

The institute continues the Computers and Writing Project. We will examine software packages and computer-assisted teaching techniques for each stage in the composing process to enable teachers of writing to use computers effectively in their classrooms. The institute will be aided by guest consultants in the field. Participants will develop a project reviewing existing software, develop a "teaching plan" for a lesson assisted by a computer, and design their own software. Permission of instructor is required.

Foreign Languages

Foreign Language Majors Programs

Students from other colleges and universities are welcome to apply for admission to the program. Students may begin any time that can be arranged during June and complete work in July. Time spent and credits earned will vary according to the need of students.

Classical Languages Majors Program

3-6 Credits

June-July

Students must register with John P. Rosso, Foreign Language Department, Main 108. For more information contact Mr. John Rosso, West Chester University, West Chester, PA 19383, telephone (215) 436-2465.

French Majors Program

3-6 Credits

June-July

Students must register with Mr. Roger J. Brown, Foreign Language Department, Main 113. For more information contact Mr. Roger Brown, West Chester University, West Chester, PA 19383, telephone (215) 436-2169.

German Majors Program

3-6 Credits

June-July

Students must register with Mr. Ronald L. Gougher, Chairman, Department of Foreign Languages, Main 109. For more information contact Mr. Ronald Gougher, West Chester University, West Chester, PA 19383, telephone (215) 436-2700.

Self-Instructional Language Program

3-6 Credits

June-July

Conversational Chinese, Greek, Japanese and Portuguese. During the Summer, 1986, students may learn conversational languages depending on enrollment and staff at West Chester University. Students must register with Mr. Ronald L. Gougher, Chairman, Department of Foreign Languages, Main 109. For more information contact Mr. Ronald L. Gougher, West Chester University, West Chester, PA 19393, telephone (215) 436-2700.

Spanish Majors Program

3-6 Credits

June-July

Students must register with Dr. Erminio Braidotti, Foreign Language Department, Main 111. For more information contact Dr. Erminio Braidotti, West Chester University, West Chester, PA 19383, telephone (215) 436-2372.

Health

Health Workshop: Human Sexuality

HEA 535-31 and 32—3 Credits

June 25-July 1 or July 9-July 15

This is introduced as a practical workshop enabling students to witness and discuss first-hand new developments in the field. Activities will include visits and discussions at a Planned Parenthood Clinic, an abortion clinic, and a natural childbirth facility. Also included will be meetings with professionals in the areas of rape, sex therapy, and sex education. Enrollment is on a limited basis. For further information, write Dr. Robert Nye, Department of Health, West Chester University, West Chester, PA 19383, or telephone (215) 436-2142.

Health Workshop: Personal Protective Equipment

HEA 535-33—3 Credits

July 17-July 23

Designed for environmental health students and professionals, this workshop will give participants first-hand experience with the selection, use, functioning, and maintenance of personal protective equipment. The organization and implementation of administrative programs concerning personal protective equipment will be discussed. This course will have particular significance for those individuals who work or plan to work in the industrial hygiene field as well as those interested in personal protection at hazardous waste sites. For more information, contact Dr. Maura Sheehan, Department of Health, West Chester University, West Chester, PA, 19383, telephone (215) 436-2300.

Health Workshop: Hazardous Materials in the Community

HEA 535-22—3 Credits

Pre Session

In recent years, the large number of incidents involving hazardous materials has made apparent the need for the training of those local officials who are often first on the scene of environmental emergencies. This workshop will review the chemical, biological and physical properties of hazardous materials; describe their human health effects; and present strategies for managing environmental emergencies. Opportunities for hands-on experience with equipment will be provided. For more information contact Dr. Roger Mustalish, Department of Health, West Chester University, West Chester, PA 19383, or telephone (215) 436-2360.

Praxiteles Pandel, director of the **Piano Workshop: Methods and Materials (MWP 539)**, has presented recitals at Carnegie Recital Hall, Town Hall, Brooklyn Museum, Jordan Hall in Boston and Carnegie Hall in Pittsburgh. He has appeared as piano soloist numerous times on CBS and NBC television networks and is musical consultant and cofounder of Dimension 5 Records for children. This summer's piano workshop, to be offered June 23-27, will provide participants with creative teaching methods and innovative teaching materials for use in their piano instruction.

History

Seminar in American History: The Constitution: That Delicate Balance

HIS 650—3 Credits
Pre-Session

This workshop will introduce teachers to the 13-part video tape series, "The Constitution: That Delicate Balance," and present recommendations on the classroom uses for the programs and supplemental materials. Each session will include a substantive discussion of a contemporary constitutional issue such as abortion, gun control, and freedom of the press. Commentary and discussion will focus on the clash of rights with responsibilities and of the needs of individuals as opposed to those of society. Readings in primary and secondary sources will supplement class discussions. For more information, call Dr. Charles H. Stuart, Chairperson, Department of History, Main 506, West Chester University, West Chester, PA 19383, telephone (215) 436-2201.

Music

Instrumental Music

Marching Band Conference and Workshop

MWB 539—3 Credits
August 4-8
Fee: \$90.00

The West Chester University Marching Band Conference is the most prestigious and comprehensive of clinics for the total marching band program in the country. Foremost authorities offer instruction in their fields of specialization throughout the week, to band directors, college students, and junior and senior high school students in separate workshops and clinics. This conference is one of the largest in the nation and is internationally renowned. There is a \$90.00 fee in addition to the cost of university course credit. For more information, contact Dr. James R. Wells, Office E, Swope Hall, West Chester University, West Chester, PA, 19383, telephone (215) 436-2495.

Keyboard Music

Piano Workshop: Methods and Materials

MWP 539—3 Credits
June 23-27
Fee: \$95.00

This seminar will provide workshop participants with creative teaching methods and

innovative teaching materials for use in their piano instruction. Nationally recognized specialists and members of our keyboard faculty will serve as clinicians. Sightreading, harmonization, memorization, improvisation, and technique will be among the topics covered in the daily lectures, demonstrations and master classes. Also included will be keyboard musicianship, recital preparation and performance, student motivation, and intermediate level piano literature of the Romantic era. Three graduate credits may be elected at an additional cost. All registration is through the workshop director. For more information, contact Mr. Praxiteles Pandel, School of Music, West Chester University, West Chester, PA 19383, telephone (215) 436-2976 or 436-2530.

Music Education

The tenth annual Department of Music Education series of summer workshops has been planned to provide both theoretical and practical applications of contemporary music education methods and materials. The workshops have been designed to meet the needs of those already teaching music. Nationally recognized specialists will serve as clinicians.

All registration is through the workshop director. For complete information and registration for the Kodaly, Handbells, Choral Music in Motion, and Electronics and Computers workshops, contact Dr. Richard Merrell, School of Music, West Chester University, West Chester, PA, 19383, telephone (215) 436-3337.

Music Education Workshop: Handbell Workshop

MWH 537—3 Credits
July 7-11
Fee: \$110.00

Beginning to advanced techniques for the ringing of handbells. General sessions for church worship, school use, special education, table top damping and similar techniques. Three levels of ringing skills are provided: beginning, intermediate and advanced. All participants will be involved in ringing a concert on Thursday evening.

Music Education Workshop: Electronics and Computers

MWE 537—3 Credits
July 14-18
Fee: \$125.00

Computer use in the classroom, all peripheral equipment, evaluation of courseware, synthesizer use, editing, MIDI applications, T.A.P. systems, electronic advances in sound and video systems. Courses are offered

within the workshop for all levels of computer understanding proficiency. Additional afterclass use will be required.

Kodaly Workshop: Kodaly and Orff in General Music

MUE 513—3 Credits
or
MUE 514—3 Credits
July 21-25
Fee: \$110.00

The principles of Kodaly and Orff will be applied to the "general music" classroom grades K-8. Choral techniques, improvisation, reading skills, classroom management techniques, songs, games, dances and similar topics will be featured. Participants select their level: MUE 513—Music Education in the Elementary School or MUE 514—Music Education in the Secondary School.

Choral Music in Motion

MWE 538—3 Credits
July 28-August 1
Fee: \$110.00

Designing movement for choirs, experiencing new choral materials and styles, general programming ideas for choral concerts and staging will be primary objectives. A minimum of six completely choreographed choral selections will be programmed and transitions, bows, microphone techniques and instrumental combinations will be covered. Composer arranger and copyright applications will be a part of the workshop. Each participant will also "program" a choral number.

Music History

Special Subjects Seminar II: The History of Jazz on Film

MHL 680-31—3 Credits
June 30-July 3
Fee: \$95.00

The seminar will present a historical survey of jazz history as recorded on film, both motion picture and video. Since performers are critical in the expression of Jazz styles, the medium of film presents a unique opportunity to associate the personage with the style being expressed. Discussion will focus on the determinates of jazz style, their historical relationships, and the lineage of stylistic influences among performers. For more information, contact Dr. Frederick Pflieger, School of Music, West Chester University, West Chester, PA 19383, telephone (215) 436-2678 or (215) 436-2530.

Valley Forge Music Fair

A 3,000-seat theatre-in-the-round is the stage for some of the nation's top performers. Located about 15 miles from West Chester University at the Devon interchange of Route 202, the Valley Forge Music Fair has recently featured such artists as Englebert Humperdink, Chuck Mangione, Temptations and Four Tops as well as the show "A Chorus Line." For information on this summer's performances, call (215) 644-5000.

Seminar in Music History II: Computer Applications in Music History

MHL 680-32—3 Credits
July 7-11
Fee: \$95.00

A workshop focusing on computer uses in music history for research, study, and testing; including basic computer literacy, word processing, statistical procedures, bibliographic useage, information retrieval, stylistic analysis, test generation, computer aided retrieval of musical performances on video disc for teaching and study.

The workshop will present guest clinicians who are in the forefront of this developing technology, on time experience with basic computer literacy, test generating software, and information retrieval.

The workshop will be open to graduate and undergraduate students and University faculty members. For more information, contact Dr. Frederick Pflieger, School of Music, West Chester University, West Chester, PA 19383, telephone (215) 436-2678 or (215) 436-2530.

Music Theory and Composition Jazz Studies Workshop

MWJ 539—2 or 3 Credits
June 16-20
Fee: \$95.00

Nationally known jazz artists will offer classes in stage band direction and contemporary improvisation. The workshop is designed for anybody interested in the study of jazz, both instrumental and vocal, and will accommodate all age groups and all levels of ability. For more information, contact Dr. James D. Sullivan, West Chester University, West Chester, PA, 19383, telephone (215) 436-2628.

Vocal and Choral Music

The Musical Review Workshop '86: Back to the '50's

VOC 539-31—3 Credits
June 29-July 3
Fee: \$125.00

This workshop deals with the concept of choral music in motion and will demonstrate all the necessary techniques and skills required to mount a successful choral ensemble show. Workshop '86 will feature the music of the 1950's. Participants will leave the workshop with a full forty-minute show entirely staged, developed and performed—

a show that can be used in, or adapted for, elementary, junior or senior high schools. The skills for selection of materials, writing of script, staging and production, rehearsal procedures, and group movement will be developed by the actual process of rehearsing and producing a complete "Back to the '50's" show. An exciting and power packed week with clinicians who give more than materials. Dr. Tom and Kay Stretton have been producing this concept of choral groups in motion for over twenty years and will give you in one week the skills, the power and the confidence to go out and produce "musical reviews" with your choral groups of any size or age. Three graduate credits are offered at a cost over and above the workshop fee. Enrollment for this course is limited to thirty-five. Please write for information and application to Robin Frenz, Workshop Director, School of Music, West Chester University, West Chester, PA 19383, telephone (215) 436-2539.

Physical Education Workshop

PED 598—1-3
June 23-August 5

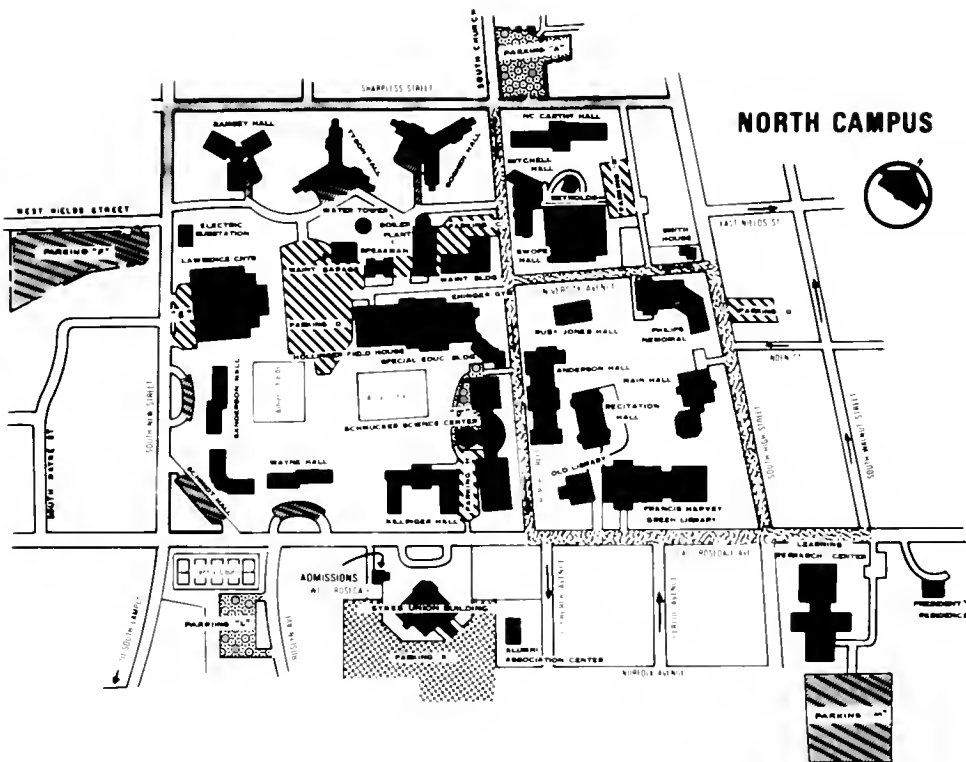
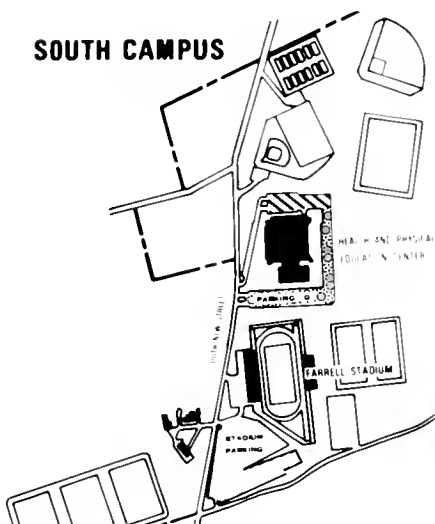
Fifteen hours of instruction in the physical activity for each undergraduate credit. Activities often presented by outside organizations such as P.G.A., N.T.A., Y.M.C.A., Red Cross, etc.

Non-Discrimination / Affirmative Action Policy

West Chester University is committed to providing leadership in extending equal opportunities to all individuals. Accordingly, the University will continue to make every effort to provide these rights to all persons regardless of race, religion, sex, national origin, ancestry, age, marital status, sexual orientation, handicap, or veteran status. This policy applies to all members of the University community including students, faculty, staff, and administrators. It also applies to all applicants for admission or employment and all participants in university-sponsored activities. This policy is in compliance with federal and state laws, including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendment of 1972, Section 504 of the Rehabilitation Act of 1973 and Executive Order of the Governor of Pennsylvania. Any individual having suggestions, problems, complaints, or grievance with regard to equal opportunity or affirmative action is encouraged to contact the director of affirmative action in Smith House, 1st floor, (215) 436-2433.

CAMPUS MAP

SOUTH CAMPUS



SUMMER SESSION CALENDAR

SESSION	DATES- Week Beginning	APRIL				MAY					JUNE				JULY				AUGUST				
		5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30
PRE	Mail Registration April 14-May 16																						
	In-Person Registration April 14-May 23										*												
	Session Dates June 2-June 20																						
REGULAR	Mail Registration April 14-June 6																						
	In-Person Registration April 14-June 13																						
	Session Dates-June 23- August 1 Holiday July 4																						
POST	Mail Registration April 14-July 18																						
	In-Person Registration April 14-July 25																		*				
	Session Dates August 4-August 22																						

SUMMARY

PRE SESSION

Mail Registration Deadline-May 16

In-Person Registration Deadline-May 23

* Late Registration (\$15 Late Fee)-May 29

REGULAR SESSION

Mail Registration Deadline-June 6

In-Person Registration Deadline-June 13

* Late Registration (\$15 Late Fee)-June 19

POST SESSION

Mail Registration Deadline-July 18

In-Person Registration Deadline-July 25

* Late Registration (\$15 Late Fee)-July 31

KEY:

▨ Scheduling and Payment Period

■ Sessions

* Late Registration (\$15 Late Fee)

West Chester University

West Chester, Pennsylvania ■ 19383

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